



25 fully destructible and interactive environments – if you can see it, you can smach it.



Battle notorious classic villains and massive new foes, Fight up to 10 enemies at once.



45 devastating attacks to dispose of your enemies.



Outsmart your enemies as Dr.Bruce Banner using stealth and disguise.













PC CD





# UNLEASH THE FURY!

Following the events of the blockbuster Universal Pictures film, troubled scientist Dr. Bruce Banner and his alter ego, The Hulk, battle The Leader, a terrifying villain intent on unleashing a relentless army of gamma creatures.



# **OUT NOW!**

The Incredible Hulk also available on Game Boy Advance™



PLAY THE GAME - SEE THE MOVIE



AUGUST 2003 ISSUE 89

### **REGULARS**

6 Editorial

The bit no one reads

6 Inbox

Your words of wisdom

10 Insight

Industry news and analysis

24 Hotware

Cool and crazy gadgets

26 Opinion

By Timothy C. Best

28 Opinion

By The Guerilla Gamer

30 Opinion

By Stuart Calvin

100 The Beast

The ultimate gaming PC

102 Setup

Troubleshooting tips

108 Mod Life

The gaming afterlife

111 Garage Games

Reports from the indie scene

112 Flashback

Nostalgia central

113 Disc Guide

What's on the discs?

114 Yellow Boots

Our roving reporter



### **GAMES IN REVIEW**

72

The latest titles we've installed

- 74 Warcraft 3: Frozen Throne
- 76 GTA 3: Vice City
- 78 Rise of Nations
- 80 Shadowbane
- 82 Day of Defeat
- 84 Blood Rayne
- 86 Big Mutha Truckers
- 87 Tropico 2
- 88 X2: Wolverine's Revenge
- 89 Will Rock

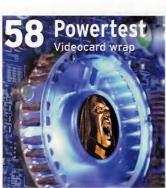


### TECH IN REVIEW

90

The silicon state of the art

- 90 Intel Chipset
- 76 Vietcong
- 78 Medieval: Viking Invasion
- 80 Port Royale
- 82 Devastation
- 84 Colin McRae Rally 3
- 85 Grom
- 86 Anno 1503: The New World
- 87 American Conquest
- 87 American Conquest
- 87 American Conquest













### 78 Renwick St Redfern NSW 2016

PHONE 02 9699 0333 FAX 02 9699 0334

#### EDITORIAL

#### EDITOR

David Wildgoose 
<davidw@next.com.au>

DEPUTY EDITOR
Bennett Ring
<br/>
<br/>
bennettr@next.com.au>

SUB EDITOR Dina Oh <dinao@next.com.au>

ART DIRECTOR
Shari Davies
<sharid@next.com.au>

DISC EDITOR
Paul Noone
<cdgod@next.com.au>

EDITOR AT LARGE Anthony Fordham <anthonyf@next.com.au>

SENIOR WRITERS
Timothy C. Best, Stuart Calvin,
Daniel Wilks.

CONTRIBUTING TECH EDITOR
Cameron Wilmot
<camwilmot@tweaktown.com>

#### CONTRIBUTORS

Cameron Johnson, Shawn Baker, Andrew Calvin, Steve Polak, John Dewhurst, George Soropos

PHOTOGRAPHY The Man in Black

### **ADVERTISING**

GROUP ADVERTISING
MANAGER - GAMING DIVISION
Joel Graham
{joelg@next.com.au>

NATIONAL SALES DIRECTOR Sue Ostler <sue@next.com.au>

### **MANAGEMENT**

PUBLISHER Phil Keir

FINANCE DIRECTOR
Theo Fatseas

OPERATIONS MANAGER
Melissa Dovle

PRODUCTION CO-ORDINATOR Natalie Pedler

#### **SUBSCRIPTIONS**

SUBSCRIPTIONS
PHONE 1300 361 146
FAX 02 9699 0334
EMAIL subs@next.com.au
ACN 002 647 645
ISSN 1326-5644

PRINTED BY Webstar

DISTRIBUTED BY Gordon & Gotch PHONE 1300 650 666 FAX 1300 650 777

All copyrights reserved by Next Publishing Pty Ltd

# ...BUT IT'S NO HALF-LIFE 2



Half-Life 2, eh? Ir May, I attended E3 with several colleagues from other Next Gaming magazines. On Monday, May 12,

we cabbed it to a theatre in Downtown LA for the Xbox pre-show conference where various Microsoft heavyweights presented dozens of their upcoming console titles. The event concluded with a real-time demonstration of Halo 2, greeted by a unanimously raucous reception. Afterwards we were certain we'd seen the game of the show, regardless of platform. In fact, for the next few days, my colleagues and I would comment about every new game we saw, "It's not bad, but it's no Halo 2."

On Thursday morning, May 15, Half-Life 2 changed all that. From then on, even Halo 2 was no Half-Life 2. I honestly cannot recall an E3 so dominated by one game. Perhaps the debut of Metal Gear Solid 2 in 2000 at the height of the industry's excitement over the PS2 is on par in terms of showfloor buzz.

But Half-Life 2 surpassed that this year in terms of the gulf between it and any other title on public display. Technically, I suppose, Valve had competition from the likes of Doom 3 and STALKER, to name two of the more prominent rivals. But we already knew they were shaping up nicely; on the other hand, Half-Life 2 benefited from its freshness. A fortnight before the show, no one expected it to even be there. And when it was, we had no idea it'd be so polished, near-complete, and unbelievably sweet. That's s-weeeet (with apologies to Kosta).

Besides E3, two big things happened this month. One, we saw Max Payne 2. Cheers. Two, tech guru Bennett Ring joined us as Deputy Editor mid-way through the issue. He's spent the past week liaising with hardware clients, networking with men in suits, sourcing cool products for review and generally racking up an enormous phone bill all in preparation for the next issue.

Thanks for all your kind words regarding PCPP#88. I think this issue is better yet. However, I promise you, the wait for PCPP#90 will be worth it...

David Wildgoose, Editor davidw@next.com.au

# The Inbox PC Powerplay 78 Renwick St Redfern NSW 2016

# MY CHIPPED FRIENDS

To my fellow gamers, I never would have pictured myself writing this letter five years ago. Being, back then, very much pro-piracy, I was proud of the fact that I didn't pay for my games. But then something very strange happened. Due to circumstances beyond my control, I was without a computer for a while, and so decided to buy a Sony PlayStation to get my gaming fix in the meantime. In contrast to my naughty PCgame-copying ways, I was an honest PlayStation owner. Sure, I had friends who got theirs 'chipped' so they could play copied games and get 'em for 5 bucks each, but I was reluctant to get my \$400 console chipped (chipping was a relatively new thing at the time), so I would just save up and buy my one new game per month.

I found this once-a-month pattern of games purchasing to be more than just a sensible economic decision. It enabled me to appreciate games on an entirely different level than I was used to with my PC. After a hard month of saving, waiting, and researching to decide which game was worthy, it was a truly exciting experience trekking in to town

on that special day of the month to grab my new game. And each game would get the best part of a month's undivided attention. Because so much research went into each purchase, I had a killer library of outstanding games, all of which I actually played through to the end (often again and again). I loved every game I owned, and I played them all to death. Meanwhile, my "chipped" friends had giant libraries of mostly outstandingly crap games, most of which they had not even played. I mean, who has enough time to thoroughly play 40 games per month? And with some of the crap they owned, who'd want to anyway? These observations led me to a realissation about

my own past. Back in the "copy any PC game I could get my hands on" days, I would end up with a bunch of say 20 games at a time - probably all pretty good games, some probably even great. But the feeling of having so many games at once, and not really knowing anything about any of them, let alone having researched and spent my own hard earned money on them - the incentive to actually play any of them in any amount of depth wasn't there. Friends would ask, "What did you think of Half-Life?". "Oh yeah, not bad... I

only played the first level. I'm too busy with the first level of the other 8 games I've got at the moment".

Hmmm... so what's my point here? I'm not attempting to make any kind of moral call on software piracy - I used to do it, but I simply found a better way of playing games, which happened to be actually researching, saving for, and buying them one at a time. Then, actually playing them! And I have to admit that. because virtually every game I buy these days is a killer title (thank you PCPP for your valued guidance), they are worth the 80 odd dollars they cost - easily better value than one crappy day at a theme park, for example. (I'd prefer not to use a big night on the

piss as a comparison since I quite enjoy that, even though it's probably just as apt). As you can tell, I have a PC again, and for the first time in a lifetime of owning them, am starting to really appreciate gaming on it for all it's worth! Maybe consoles are good for something after all. Lesson learnt. Best regards

Stewart Waldron

Typically here at Inbox, we savagely edit your letters to ensure they're actually coherent and make some kind of point. Not this time. We've printed Stewart's letter in full, completely unedited. Letter of the Month? Letter of the fucking millennium, more like.



# Playing to win?

HOME 512K/128K 24x7 BROADBAND Internet (6GB/14GB downloads)

& unlimited Netspace games

server access

# from \$69.95 p/m

High speed, high volume ADSL HOME Internet access/usage plans that INCLUDE huge monthly transfers:

- LITE 256/64 \$49.95 (1GB DOWNLOAD P/M)
- ► **HOME 512/128** \$69.95 (6GB DOWNLOAD P/M)
- ► HOME 512/128 \$99.95 (14GB DOWNLOAD P/M)
- HOME 1500/256 \$149.95 (18GB DOWNLOAD P/M)

### ALL Netspace HOME Plans include:

- Prevents excess monthly download usage and charges overruns.
- FREE UNLIMITED DOWNLOADS & UPLOADS BETWEEN NETSPACE SAME-STATE HOME ADSL CUSTOMERS
- FREE UNLIMITED ACCESS TO NETSPACE GAMES SERVERS
- FREE UNLIMITED UPLOADS. FREE TRAFFIC AREAS AVAILABLE
- ▶ 10MB FAMILY WEB PAGE. 7DAY HELP DESK
- 56KB MODEM ACCOUNT FOR REMOTE INTERNET ACCESS
- FULL WINDOWS 98+/XP/MAC OS9+ SUPPORT
- > ETHERNET PLANS/MODEMS ALSO AVAILABLE
- ▶ OPTIONAL 6, 12 & 18 MONTH CONTRACTS WITH VARIABLE ONE-OFF SET-UP FEES.





Uses existing telephone line.
No interruption to normal voice calls while using Internet.

No need to change your telephone company to get these super broadband prices and transfers.

Netspace ADSL available metro and regional areas, Australia-wide, where ADSL-enabled standard telephone lines apply. Monthly download limits based on peak and off-peak times. Terms & conditions apply.









http://www.netspace.net.au e-mail: info@netspace.net.au

1300 662 991

# FROM THE FORUMS: PC vs Console - yep, that old chestnut...

Posted: Mon May 26, 2003
Subject: Xbox steals PC pride
"Please prove me wrong but
isn't Xbox taking over the
PC? I mean, if they are going
to publish every bloody game
they get their grubby hands
on on Xbox before PC people
will begin losing patience and
buy a bloody Xbox! How the
hell is the PC going to
survive with Microsoft
publishing every major
realease on Xbox?"
chillypacman, Peon

Posted: Mon May 26
PC gaming has life left in it, since its too diverse in the number of genres it has at its

disposal. Also, there are certain genres consoles can't do as well as PC, such as RTS and turn based strategy. It's still king with FPS despite games like Halo. BigBastard, Ur-Quan

Posted: Mon May 26
Of course Xbox is getting a lot of attention these days, and it's a great system, however, it holds nothing compared to the PC and will fade away just like they all do in time.
Cyanidix, Tiefling

Posted: Tue May 27 What's really killing off the PC games industry is that the innovative titles are being released on the consoles, while PC developers trod out sequels and graphical improvements.

Sitting Duck, Overmind

Posted: Tue May 27 I keep hearing that, but fail to see how it is true. Console games simply suck! The lack of keyboard and mouse restricts them beyond compare. Champ, Tiefling

Posted: Tue May 27
The PC is the most durable platform and will once more rule the roost. This has been happening everytime a new generation of consoles is

released... Granted this current generation has made the effect more pronounced, but in no way will PC gaming be snowed under by consoles just as console game will not be killed off by the PC.
Champ, Tiefling

Posted: Tue May 27
The Xbox is good because it's convenient. When you buy a game for Xbox, you simply whack it in and play it. With a PC you have to install it, configure it, realise you need to download the latest drivers, download them for ages, install the drivers, realise that it wasn't your videocard but

the game at fault and then download the patch. The appeal of Xbox is that you dont have to any of this. ElPresidente, Moderator

Posted: Wed May 28 I haven't owned a console since my Atari when I was a litti 'un, and have no intention to own one. The difference will always be game quality for me. How many cerebral or even semicerebral games are there on consoles? How many Planescapes, BGs, Arcanums, Deus Exes, System Shocks, have there been on consoles? grishnahk, Guardian

### **IGNORE IT**

Are you going to reply to this or ignore it like the other emails I've sent you?

133 [-]ax0r

(Snip! - Ed.)

# A SPRING FLING?

A question I would like to ask is: "What do I do with my old games?" I'm sure there is many a gamer out there with a horde of old games, which may have been at one time, their all time favourite. But what about the other games that were but a passing fancy? A spring fling? The one your mate said was good, but didn't quite measure up in your books. How do we remove these from our life without feeling like we were ripped off of our money?

Why should we go out and buy a game for \$89.95, when in 6 months time, it might be another spring fling? Will it be lucky enough to be the one we actually put in a special pile of revered games? Or the pile we use for benchmarking to justify the upgrade of that CPU or videocard?

I have a pile of games I want to give to a good home. They were good games. Not great, but good. Most were played and enjoyed, but some need to be put to pasture. Should I keep an old P3-800 with a Voodoo 5 running Windows 98 for these games?

If you can answer these questions, it would be great, so I can feel good about myself and get ready to spend up on Doom 3 and the games in-between.

Asmodeus

Our experience says you'll regret getting rid of your old games, so hang onto that old PC for a while yet.







### **SMASH ROCKS**

The new problem that gamers face when buying a game is the fact that so many games boast the best graphics ever or groundbreaking effects. This is becoming a massive problem as it is clouding the love of gameplay. All my friends are going on about how you can smash rocks and walls in Red Faction 2, or how good the graphics in Splinter Cell is and I find myself wondering if they actually enjoy the game.

To find out, I did an online poll and found that out of the 2500 people that responded around 2100 liked a game for its graphics and only 400 liked a game for its gameplay.

Are developers spending too much time concentrating on graphics and making the gameplay suffer? I think they are. I really enjoy playing GTA, GTA 2 and Age of Empires 2, and these don't have the best graphics but the gameplay is so good the graphics hold no meaning. I think gamers should think twice about buying a game because of its graphics and think instead about the gameplay.

Remember the old saying, "Don't judge a book by its cover"

Jordan Ingleton

Thanks Jordan, you've hit upon one of the eternal truths there. Most people are idiots. We'll take Space Tripper over Unreal 2 any day. And on a similar note...

### **EASY AS PIE**

Flicking through the latest issue of PCPP, I see yet another iteration of the "Upgrading is too expensive and frequent" topic, the Letter of the Month, nonetheless. Frequently I see high system requirements as a negative in your reviews. It seems to be one of the topics people won't shut up about. It fuels the console versus PC debate, and in my opinion is completely unfounded.

Yes, we all have to upgrade at some time in our lives. In fact, my upgrade to a post-2GHz system was only about six months ago. But what about the computer that came before it? I'm glad you asked. Despite being only a P3-733 with a GF2 MX440, my family and friends still use it extensively as a lean LAN machine that runs most everything in a satisfactory manner. C&C Generals? Absolutely no problems. Freelancer? Easy as pie. UT2003? You guessed it.

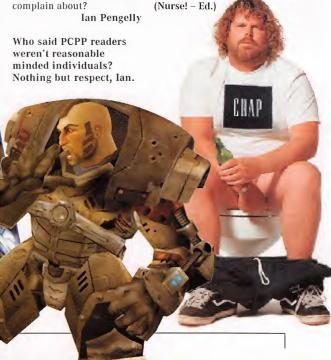
Why is it that as soon as a game that actually uses the capabilities of brand spanking new hardware on the highest graphical options, it's shot down for being too systemdemanding? I'll let you in on a little secret: when the gameplay starts getting choppy, go into the option menu, and turn down some settings. Now, instead of the game looking absolutely beautiful and running like a shitcake sandwich, it looks merely great and runs at the desired 30+ fps. If my P3-733 (cost: next to nothing) can run these games, then what's there to complain about?



### **JUST CRAP**

I think that Counter-Strike
Condition Zero will be like
Raven Sheild too realalistic
thats whats is going to be bad
about it sure the grphics are a
bit better but it would be
much better if it was a
multiplayer thing I won't get
more popular because of
single player it would be
better single player and
multiplayer but it's not so its
just crap!

Matt Daniell





TM, Ø, & Ø 2003 Paramount Pictures. All rights reserved. Star Trek and related marks are trademarks of Paramount Pictures. This product contains software technology licensed from Id Software, Inc. Id Technology © 1999-2003 Id Software, Inc. Game code © 2003 Activision, Inc. and its affiliates. Developed by Ritual Entertainment. The ratings icon is a registered trademark of the Interactive Digital Software Association. All other trademarks and trade names are the properties of their respective owners.

activision.com



# IT'S NO HALF-LIFE 2. Highlights from the showfloor at E3

David Wildgoose

2 003's Electronic Entertainment Expo will be remembered as the year the PC stepped out of the shadows and back into the limelight. After several years of muted



indifference, with the focus of many exhibitors and attendees aimed squarely at the new batch of consoles, PC games stole this year's show. From the big name franchises such as Half-Life 2, Doom 3 and Deus Ex 2 to the lesser-known likes of STALKER: Oblivion Lost, Battlefield Command and Lords of the Realm 3, the humble PC had a depth and breadth of quality unmatched across all formats.

Discussions with numerous resulted in a unanimous conclusion as

developers and fellow journalists to why. The most recent generation of

PC hardware technology has now advanced well beyond the capabilities of the current trio of consoles. And as consumers purchase such technology in sufficient numbers, it frees up developers to exploit this new-found functionality to its fullest. Publishers, too, monitoring the diminishing returns of console development, are again willing to place their faith in the PC. The end result, as witnessed throughout almost every publisher's stand, was a host of technically superb

and highly innovative PC titles.

Of course, it would be remiss to fail to mention the equally large number of uninspired, me-too titles spoiling an otherwise splendid vista. But when you've just seen Half-Life 2 up and running, to be honest, who cares about yet another bloody firstperson shooter. Indeed, Valve's next masterpiece collected a nomination for Best Game of Show (from the E3 Critics selection). As we go to print, the winner had yet to be announced,

### **PCPP E3 AWARDS**

### **Best of Show**

- 1. Half-Life 2
- 2. Prince of Persia: The Sands of Time
- 3. War of the Ring
- 4. STALKER: **Oblivion Lost**
- 5. Thief

# Best Technical Achievement

Half-Life 2

#### **Best Aesthetic Achievement**

Prince of Persia: The Sands of Time

#### **Best Booth**

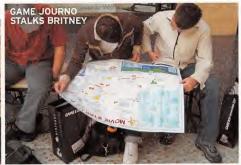
Vivendi Universal Games

### **Biggest Surprise**

Prince of Persia: The Sands of Time

### E3 HEADLINES...









but Half-Life 2 is the clear favourite. It also seems likely to pick up the award for Best PC Game, though it's up against stiff competition in Call of Duty, Deus Ex: Invisible War, Halo and The Sims 2.

Military shooters were certainly the favoured genre, with the likes of Men of Valor, Call of Duty, Hidden & Dangerous 2, endless Tom Clancy spin-offs, et al, all skulking through the undergrowth of nearly every booth like a gaggle of Vietcong.

The real-time strategy game's switch from 2D to 3D is now complete. Every man and his peon seemed to be working on a 3D RTS that was allegedly superior to Warcraft 3. More remarkably, many of them actually looked quite good, with ventures such as Vivendi's War of the Ring, Ground Control 2 and Homeworld 2 leading the way. The reigning kings of the genre were reduced to hawking mere

expansion packs, genuine RPGs were as rare as a flat-chested barmaid at the local tavern. Of the few we encountered in the LA convention centre's seedier back alleys, Gothic 2 impressed, while Troika's Greyhawk-based Temple of Elemental Evil was early but promising. However, rumours of Baldur's Gate 3 did just enough to revive our flagging enthusiasm. But more on that at a later date.

You can read our thorough coverage from page 44 of well over 40 of the most outstanding titles on display. In the meantime, check out our Best of Show awards, as decided by the PCPP crew.

### E3 HEADLINES...













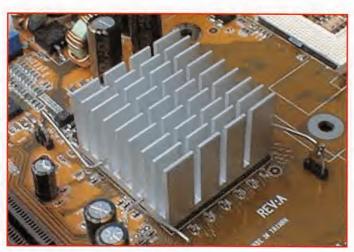
# SPRINGDALE: INTEL 865 CHIPSET

# **Mainstream Dual DDR**

Stuart Calvin

otherboard chipsets have a profound effect on not only the way your system functions, but also the features that can be integrated. Only five years ago, the Intel 440BX AGPset chipset was considered revolutionary, if not

eagerly anticipated. It optimised overall performance with a 100MHz Front Side Bus (FSB), an AGP and PC100 SDRAM. It also provided the interface for 1394 FireWire and ATA66 drives. It was literally "next-generation performance", but my,



Modern art: Good enough to show at the MCA

There are multiple versions of the Springdale Memory Controller Hub in order to tailor to the needs and price points of the mainstream market segments

how far we've come since.

In April 2003, Intel introduced another leap in chipset technology with the 875P Canterwood. It not only offers an 800MHz FSB, but also brings integrated Serial ATA (with optional RAID support), a dualchannel DDR400 memory controller and a new bus for high-speed Gigabit Ethernet, Now Intel is shipping the logical successor to the 845 series of chipsets, the 865 Springdale. There are multiple versions of the Springdale Memory Controller Hub in order to tailor to the needs and price points of the mainstream market segments. The features common to all three 865 chipsets are Hyper-Threading support, dual 64-bit DDR memory channels and Gigabit Ethernet. All

865 chipsets can be paired with the ICH5x chip, which handles things like the 10/100 Ethernet, AC'97 audio and USB 2.0, and thus enables a total of eight USB 2.0 ports, dual independent Serial ATA ports and optional Serial ATA RAID support with the ICH5-R. The 865P only supports DDR266/333 and is therefore best suited for 400/533MHz FSB CPUs. Next is the 865PE, which is basically the 865P plus 800MHz FSB and 400MHz memory support. Finally, there is the 865G, which is the 865PE, but with Intel's integrated graphics core. Disappointingly enough, the 865G uses the same graphics core as the 845G, which, as we've seen in the past, can hardly be considered to be a 3D accelerator.

# **CLAWHAMMER AND SLEDGEHAMMER**

# **Read: San Diego and Athens**

Stuart Calvin

While the AMD Opteron SledgeHammer may be claiming the majority of processor news-space, AMD has snuck out another Athlon Barton XP CPU and in tandem, has radically altered its processor roadmap (www.amd.com/us-en/Processors /TechnicalResources/0,30\_182\_608, 00.html). The Athlon XP 3200+, running at 2.200GHz, features a faster 400MHz Front Side Bus (FSB). This CPU now out-reaches the 2167MHz Athlon Thoroughbred XP 2700+ in terms of raw stats. What's

### BLACK HAWK DOWNED TWICE

Novalogic has announced the inevitable expansion pack for its successful Black Hawk Down spin on the Delta Force franchise. The add-on, entitled Team Sabre, includes two new campaigns (in South America and the Persian Gulf), a host of new controllable vehicles (including a helicopter and hovercraft), and over 30 bonus multiplayer maps. It will ship before the end of the year.

now clear is AMD devotees will be left with a dilemma: upgrading and gaming with an Athlon Barton XP (512KB on-chip L2 cache), which is set to remain on a 13 micron process or wait for the 0.9 micron Athlon 64 San Diego. Note the "64" moniker because "XP" is now just for Barton CPUs and a well known operating system. The as-yet unseen, 13 micron Athlon 64 ClawHammer, will be displaced by the Athlon 64 San Diego early in 2004. There's no more bitumen for the Duron on the AMD roadmap past December 2003 and the Athlon Thoroughbred XP is cut from the fab plants in June/July this year. The real market for AMD is in SOHO desktops, particularly the budget conscious consumer, which we assert includes most gamers. That "64" tag is set to unnecessarily confuse many people since the Opteron SledgeHammer and Athens models are the 64-bit Enterprise class (server) products. Unlike Intel's Itanium processor, which 'understands' only IA64 software



Bye Bye: An old Athlon, going the way of the Dodo

and which is not backwards compatible to the ubiquitous Pentium 32-bit processors, Opteron will 'understand' today's 32-bit software, as well as future 64-bit software. Opteron executes both software types natively and, thus, with full speed. Don't be confused: stick with the Athlon Thoroughbred XP while you can or the Barton XP if you can afford one, but get used to this year's "Athlon 64".

The real market for AMD is in SOHO desktops, particularly the budget conscious consumer, which we assert includes most gamers

# NVIDIA NOT CHEATERS THE MAYANS

# Controversy in 3DMark03 optimisations

Anthony Fordham

A s everyone who isn't prepared to spend more than ten minutes benchmarking their PC knows, 3DMarks mean everything. A 3DMark score means big respect or big shame at a LAN.

So, whenever benchmark developer Futuremark releases a new version of the ubiquitous 3DMark tool, gamers and graphics chipset manufacturers alike sit up and take notice.

Things began badly for nVIDIA with the latest 3D Mark version, 3DMark03. The previous version - 3DMark2001 SE included optimisation routines for different processors and chipsets. Futuremark decided to remove these to provide what it saw as a more truly comparable set of tests.

Unfortunately, nVIDIA's new GeForceFX line of cards performed spectacularly badly against equivalent ATi Radeon products in the DirectX9 tests, which focus particularly on 128-bit colour.

A quick nVIDIA Detonator driver revision later, and the problem was fixed. But the impressive new results made Futuremark suspicious.

The benchmark company then released a statement, saying it believed the new nVIDIA drivers - which had not been WHQL certified - included code tweaks to allow the DirectX9 tests

to run in 64-bit colour, even though the benchmark is supposed to only allow 96-bit minimum.

This would improve framerates at the expense of colour quality, and result in a benchmark result not truly comparable with other benchmarks.

"Because all modifications that change the workload in 3DMark03 are forbidden, we were obliged to update the product to eliminate the effect of optimisations identified in different drivers so that 3DMark03 continued optimisations) are the result of the codevelopment process. This is the approach nVIDIA would have preferred also for 3DMark03," the graphics giant said in yet another statement.

Rather than feuding, Futuremark and nVIDIA now claim they want to work together to create a clearer set of industry

Rather than feuding, Futuremark and nVIDIA now claim that they want to work together to create a clearer set of industry benchmark guidelines

to produce comparable results," the statement said.

Futuremark, therefore, suspended publication of results gained using the questionable drivers on its website.

A couple of weeks later though, Futuremark released another statement, saying that after meeting with nVIDIA, it had come to the understanding that the new drivers contained not 'cheats' but rather "application specific optimisations."

This means the drivers recognise

when the card is running 3DMark03 and tweak performance accordingly. While this might sound like cheating, nVIDIA insists that this is normal in game development.

"nVIDIA works closely with developers to optimise games for GeForceFX. These optimizations (including shader benchmarking guidelines, including the recognition of application specific optimisations.

Meanwhile, the games industry once again no longer has a truly unoptimised DirectX9 benchmark, so even if you get a spectacular 3DMark score, you won't be able to be as confident that the score is representative of how games will perform on your PC.

The funny thing about all of this is that ATi was also once caught 'cheating' on Quake 3 benchmarks, creating a false .exe file called Quack that allowed framerate optimisations at the expense of image quality.

ATi was slammed for the cheat, but is now keeping conspicuously quiet about this new business with nVIDIA. Perhaps having the world's fastest commercially available gaming videocard - the Radeon 9800 Pro - has something to do with it.





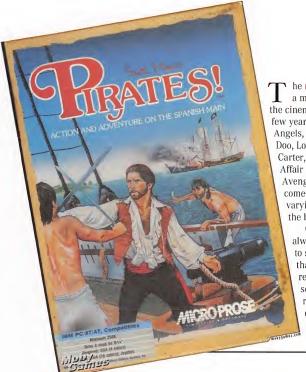
Satanic: Why is videocard packaging always so cheesy?



# **MEMORY LANE**

# **Nostalgia Meets 3D Acceleration**

Timothy C. Best



The remake has been a major fixture at the cinemas in the past few years with Charlie's Angels, I Spy, Scooby Doo, Lost in Space, Get Carter, Thomas Crown Affair and The Avengers all making come-backs with varying success on the big screen.

Games have always been partial to sequels rather than outright remakes, but it seems that the remake bug has crept into developers' hearts as well.

as there are several childhood favourites are re-surfacing.

Take Prince of Persia for example. After an awful resurrection in the 90s, our Arabian prince is reborn in the Sands of Time that turned out to be a surprise hit at this year's E3. Our young prince now runs up walls like some Crouching Tiger and busts impressive swordsmanship. Forget the 90s, this is the 00s.

Then we have the return of Sam & Max Freelance Police and Full Throttle: Hell on Wheels that had helped launch the wild success of LucasArts. Details are still fairly thin, but both games are keeping the cartoony and over-the-top style that made them fan favourites.

The arcade classic, Spy Hunter, is not only getting a new PC game, but is also getting a movie deal, possibly starring wrestling superstar the Rock.

Sid Meier's remake of the 1987
Pirates! is also on the cards after
Firaxis got more requests for it than
any past other game. The original
Pirates! was amazing, allowing players
to sail the high seas, fight, trade, buff
up your ship and stash pirate gold.
This time around, the game will focus
on the role-playing elements of being
captain that plunders, sword fights,
gathers crew and ships and attacks
fortified ports. Naturally, it'll be all 3D
this time around.

Sid has hinted this is only the first of a line of titles he'd like to re-visit.

This trend for revival is welcome at a time when developers are often accused of getting carried away with hardware tricks over story and character. A trip back might not be a bad thing.

# **GEORGE BROUSSARD VS THE WORLD**

# Duke Nukem Forever developer takes on disgruntled fans

Anthony Fordham

Pollowing Take2's buy out of Duke Nukem Forever from previous publisher Infogrames, the eternally delayed FPS's lead developer, George Broussard, has once again found himself the target of gamer anger.

Disgruntled DNF fan
CultureShock now claims Broussard
owes him \$US100,000 following a
comment Broussard made to the
effect that he would "pay \$100k to
anyone who could prove" he received
"a dime" of the \$US12 million paid
by Take2 to Infogrames.

3D Realms continues to fund the six year old DNF project itself, and the

developer is nonplussed at recent comments by Take2.

The publisher claims it has written off the \$12 million it paid for DNF, and made comments to the effect it didn't care whether or not the game would ever be released.

Broussard angrily responded on 3DRealm's own forums, saying "Take2 is doing stuff on its end to make its position look better for analysts."

"When Take2 says it 'pulled the plug', it means it has taken the hit for the write off on the game and now if it gets [DNF] fine, and if it doesn't, fine. Its books have already accounted for



Rumbled: Proof 3D Realms has been playing the pokies at the time!

"All we want to do is keep quiet, work on the game, and emerge later and show you what we're working on. We don't want drama"



Broussard: In happier times while working on Prey

their investment in it," he says.

Broussard believes 3DRealm's reputation is being damaged by Take2 implying the game will never be released. He says because Take2 has made so much money on GTA3 and GTA Vice City, it can afford to write off DNF and when the game is finally released, make "pure profit."

"Take2 needs to STFU. All we want to do is keep quiet, work on the game, and emerge later and show you what we're working on. We don't want hype. We don't want drama. We don't want Take2 saying stupid ass things in public, for the sole purposes of helping its stock," says Broussard.

helping its stock," says Broussard.
Don't expect DNF any time this
year though. Maybe next year. Or the
year after. In any case, do you really
want them to release it? Who will
fulfil the industry's bitch quotient

then? Derek Smart?

As for CultureShock's \$100k, "Ooh, handbags at dawn!" was one biting observer's comment.

### **BACK IN TIME**

TimeGate Studios, creator of the acclaimed Kohan series, has been named as the developer of the next instalment of Atari's Axis & Allies franchise. Based on the board game of the same name, the new iteration of the hardcore strategy series looks set to benefit from TimeGate's talent for crafting an accessible yet deep experience. The current prediction foresees a late 2004 release.

# **EQ'S GREAT DEPRESSION**

# Platinum pieces aren't worth real money

Anthony Fordham

ince the launch of EverQuest and the subsequent launch of its many expansion packs, some players have found themselves able to turn a real-world profit by selling in game artefacts and money on Internet auction sites, such as eBay.

The practice has been so successful it has spread to other MMORPGS such as Ultima Online, Anarchy Online, Dark Age of Camelot and EA's struggling Earth & Beyond.

As a result, so much money has changed hands online, the combined economies of the online worlds now rival Russia's. That's right, EverQuest and its ilk have the 77th highest GDP in the world.

Or rather, they used to. Thanks to a slew of recent MMORPG releases and consoles hopping on the online bandwagon, the virtual economies of games have crashed, in a big way.

Dr Edward Castronova, a professor in economics at California State Fullerton University in the US, wrote what he initially thought was a 'funny paper' on online economies. However, following massive interest from gamers and pundits alike, he has since set up the world's only indexes tracking virtual world money.

The two indexes track the value of online currency against the greenback, and the value of online avatars. Players trading their characters on eBay or similar sites can, therefore, expect a certain payoff for high level characters.

Castronova tracks the value of virtual cash each quarter, beginning in 2002. However, since his base quarter, it's been nothing by downhill for the EQ Platinum Piece. Currency has consistently lost value, most spectacularly in Q1 2003, where it dropped to just 30% of its 2002 price.

Castronova blames the release of

new games. "There are now too many games and not enough players," he says. He also notes that while games like EQ and Ultima Online have relatively high currency values, newer games like Earth & Beyond require the player to collect millions of game currency units just to earn a single US dollar, and this is skewing the currency index badly.

"The number of available games has tripled over the last year." says Castronova, "while the number of players hasn't grown anywhere near

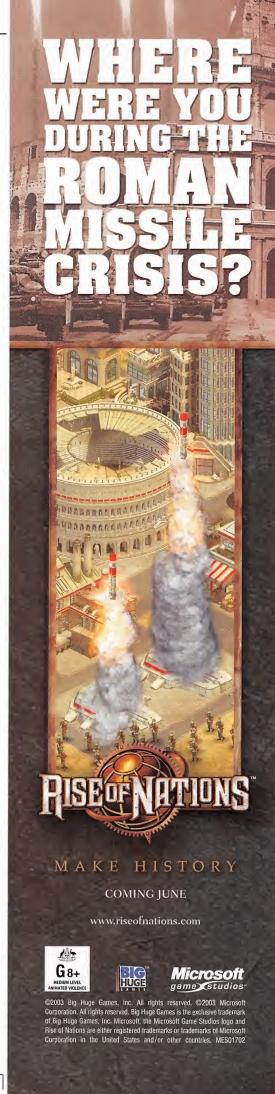
A prime example is EA's Sims Online, which has proven so lacklustre the publisher has yet to bother with a proper Australian release. And still with EA, Motor City Online, supposedly a revolution in multiplayer racing, was axed due to the sombre fact practically no one bothered playing it.

And yet, just when making money from your EQ pseudo-life seems like a lost cause, there's an anomaly. The Avatar index has actually risen in the last quarter, up from a low late last year. Castronova is mystified but has a few theories.

"Maybe it has to do with the robustness of the two oldest games, EverQuest and Ultima Online," he says. "People seem to still be prepared to pay top dollar for high level characters, so even if actual platinum pieces aren't worth much, having a Level 65 Monk still is."

The real problem for the currency index is that EQ, UO and other worlds are now populated almost exclusively by people wandering around stuffed to the gills with gold pieces, magical armour and spells, which they can't





# HANDHELD WAR

# Sony dons the fatigues

Timothy C. Best

n the mid 90s, Sony leapt into the console ring and went head-to-head with Nintendo. Today, its PlayStations are in more homes than any other console system and just recently Sony has declared it is going to tackle the Big N in the handheld arena as well, vaulting against the phenomenally successful Game Boy line.

Sony's handheld system will be called the PSP (PlayStation Portable)

### SAM SPLITS

With sadly muted fanfare and scant surprise, Ubi Soft has finally confirmed a follow-up to its controversial multi-format espionage adventure. Splinter Cell. This time around, promising a strong cinematic feel and an even more pronounced emphasis on realistic gameplay, the sequel, bizarrely subtitled Pandora Tomorrow, is on track for release sometime early next vear. Perhaps the most intriguing aspect to the sequel is the addition of a cooperative multiplayer mode, where presumably several sneaky Sam Fishers play some hide and seek in the dark.



and should hit shelves by about the end of 2004.

The system will feature a 480 x 272 dot, backlit screen. If the dot dimensions seems a little odd it's because the PSP will feature a 16:9 ratio wide-screen more akin to the proportions of a movie screen instead of computer monitors or standard TVs.

This nifty gizmo will take cartridges boasting 60mm optical discs with 1.8Gb of storage a piece, have a USB 2.0 port, stereo sound, in-built 3D graphics processing, MPEG4 decoding as well as a rechargeable lithium-ion battery.

With these features and judging by what Sony did with DVD playback for its PS2, it looks as if Sony will be offering some form of portable movie playback for the PSP on top of the music and games.

Sony's impressive movie and music labels should be enough to entice gamers, even if the studios are slow to warm to the new format. That's the sort of home entertainment power Microsoft would turn green with envy. In fact, the PSP is being dubbed an all-in-one portable



Not actual size: Will the mysterious P3 look like this?

entertainment system.

On the games front, Sony has announced plans to release tools in the next few months for developing PSP games on PCs, which means it's likely to go after major publishers, such as EA and Take 2, that have in the past expressed modest interest in Game Boy development. It looks like Nintendo's own draconian development agreements

might come back and bite them.

However, Nintendo is hardly out the running as almost a million of its updated Game Boy Advance SP systems have been sold since March. But with advancing competition from the recently announced Nokia N-Gage, the edutainment Leapster and the soon to be released Helix, Nintendo will be watching its borders.

# N-GAGING DEEP WATERS

While still in early days, the N-Gage was

showing off some muscle and is bound to

# Nokia vies for a piece of the lucrative games market

hile the N-Gage has already been officially unveiled, Nokia put on a press event before this year's E3 to outline their plans for the device and to answer more than a few nagging questions. The emphasis of the event was on mobility, functionality, partnerships, wireless gaming and network capabilities.

impress those of us who like mobile FPS gaming their approach and revealed a worldwide release date of October 7, as well as a tentative Australian price point of \$549. All of Australia's major

plan to suit their needs and Optus is negotiating as the sole gaming network provider for N-Gage. To pull out all the stops, Nokia invited John Romero on stage to show off what his team had been able to accomplish for Red Faction 2 on the handheld. While still in early days, the N-Gage was showing off some

those of us who like mobile FPS

gaming. Other partnerships were revealed with Activision coming out on top with a port of the infinitely successful Tony Hawk, in complete PSone glory, which showed the press that the processing power of the N-Gage was very similar to the dinosaur Sony home console. Sega, Eidos and THQ also proved to be strengths on the N-Gage with a demonstration of a blue-tooth active Tomb Raider in full multiplayer glory. Nokia Australia's Rick Gawdat revealed that an aggressive and educational advertising campaign was in the works with more to be discussed in the near future. The company claims not to be at war with Nintendo, Microsoft or Sony and if this is true, then the N-Gage is in a good position to infiltrate an untapped area of the industry. However, whether it will be successful in taking a piece of the gaming pie, only time will tell.

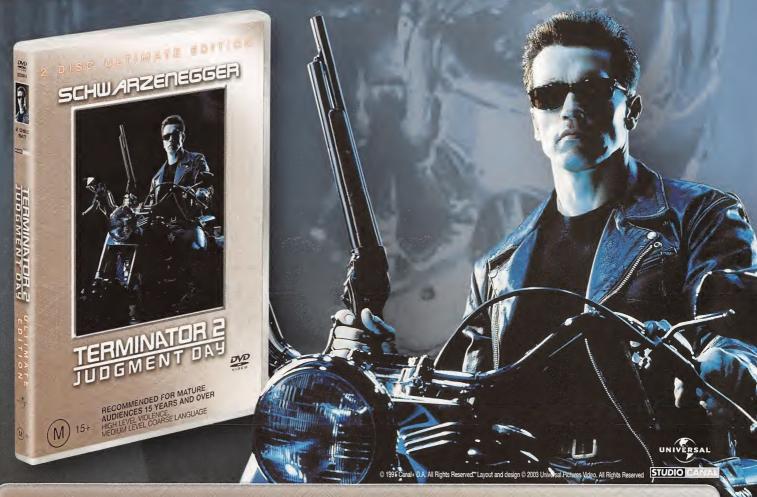


HE TOLD YOU HE'D BE BACK!

# TERMINATOR 2

# JUDGMENT DAY

BEFORE YOU SEE TERMINATOR 3 - YOU WILL NEED TO EXPERIENCE T2: THE ULTIMATE EDITION 2-DISC DVD



### OVER 6 HOURS OF CONTENT IN AN EXTREME 2-DISC EDITION:



- Digitally remastered Special Edition Director's Cut of T2
  - Audio Commentary featuring 26 members of cast and crew
- 3 Featurettes including 'The Making of T2'
- The Entire T2 Screenplay / Original Storyboard sequences
- Video Clip Archive / Data Archive
- DTS / Dolby Digital Soundtracks
- 32 Page collector's booklet
  - PLUS MORE EXTREME FEATURES!!

JUDGMENT DAY IS JULY 9, 2003

RENT OR BUY AT









# **LET'S GET BROAD**

## **Telstra Looking for 500K Users**

Timothy C. Best

T elstra is mounting a push to bring its broadband subscriber base up above half a million by the year's end. It already has approximately 100,000 retail subscribers and another 200,000 hooked up through other ISPs.

An extra 200,000 subscribers equals one impressive push.

Telstra knows it has to do more to hit that magic number. The first step is a re-designed broadband portal and the second, but most important, is to find more for broadband users to do.

Telstra is already participating with Sony to trial broadband access for the Playstation2. This would allow a gaming portal for the most popular next-gen console in Australia and it could be in place as early as September.

Telstra is also trying to finalise three other major deals, but the company won't divulge the information. It is known, however, that Microsoft was also contacted about bringing Xbox into the mix, but this is unlikely to go ahead as there is a lack of strong online games and EverQuest Online Adventures.

When Telstra last attempted a major content push with its expensive Telstra.com, which rumours suggest cost a cool \$100 million, the grand plans fell short of completion. This time around, Telstra has adopted the strategy to partner itself with content ripe for picking and, therefore, making itself more attractive to other companies. Judging purely by the advances already made to Sony and Microsoft, it looks as if Telstra is looking hard in the gaming direction.

On a side note, Optus also claims to be testing the PS2's online capabilities. This is all very positive for gamers in Australia, because it means that even the government drags its heels in the dirt over concerns for broadband, the service providers will be pushing for action. Having telcom giants like Telstra and Optus looking for content brings more online games content our way than any distributor or fans could do alone. You should have seen the song and dance it took to convince Origin to set up an Australian Ultima shard back in the day...



New Offer: Telstra CEO Ziggy Switkowski looks into the profitable world of gaming

# SONY BUNDLE Online Games Package

Timothy C. Best



ony has announced an "All Access Service" for USD\$21.95 (about AUD\$36), which allows players access to all its premium titles including: EverQuest, EverQuest 2 (when it comes out), EverQuest Online Adventures, Planetside, as well as a Station Pass granting access to slightly less premium Infantry, Tanarus and Cosmic Rift.

Since the normal monthly rate is USD\$12.99, you will have to be pretty keen to want to play two games at the one time to access the new service. Since three of the four main titles are EverQuest, it might look like Sony's All Access scheme is doomed to failure, but it does have some advantages, especially since it is potentially splitting its online subscriber base amongst the EQ titles.

It may work like this: pass players can continue to play their old EQ and in the meantime trial the PS2 version and also view a possible new campaign in EQ2. Also, with Planetside on offer, the All Access deal can have the player choosing between it and EQ.

Although Sony Online is developing Star Wars Galaxies for LucasArts, it is not included in the deal, which is a major pity, as another major title could have made the service a hot ticket.

The concept is clever enough to

offer enough safety net choices to lure a whole new market of casual gamers as well.

Hopefully, companies with a stable of online games like NCSoft will follow Sony's lead and offer a similar deal on subscription to its upcoming games including Lineage 2, City of Heroes, Guild Wars, Exarch, Kingdom Under Fire and Shining Lore. Now, that would be impressive.

# GAME FOR AN OSCAR?

The Academy of Machinima Arts & Sciences has begun calling for entries for this year's Machinima Film Festival. For the uninitiated, machinima is the art of filmmaking using 3D game engines. Last year, Epic's Mark Rein and id's John Carmack presented awards, including the Best Picture gong to Jake Hughes for his film, Anachronox: The Movie. The submission deadline is September 15, 2003, so get building!

# E Navarwintar WENTS

Never
Winter Nights
now only
\$49.95rrp

# HAIDOWS WIDERITIE

### EXPANSION PACK

Requires the original Neverwinter Nights to play

# Neverwinter Nights... a world without limits!

Neverwinter Nights: Shadows of Undrentide, the first official full length Expansion to BioWare's award winning Neverwinter Nights featuring 40 hours of all new single player gameplay. Build more compelling adventures with the enhanced Neverwinter Aurora Toolset. Three new tile sets, new monsters, weapons, feats, skills, and spells.

Powerful new and deadly devices are available to adventure designers through scripting - including projectile traps. The recently released Plot Wizard makes adventure creation easier than ever!

























# **REVEALING GAME GEEKS**

# **IDSA Survey Paints Player Picture**

Timothy C. Best

E very year the US Interactive Digital Software Association runs a survey that looks at consumer buying trends and each year holds some surprises. This one is no exception. By far, most gamers of the 1,350 representative gaming households in the US can get into R rated movies with the percentage of console gamers under the age of 18 dropping by 8% to 38%, while PC gaming minors are down to 30%. In fact, the survey revealed remarkably that for PC gamers 41% of game

players were over 36.

Complaints about violent games should also be tempered by data showing 98% of PC games and 92% of console games are purchased by people over the age of 18. Also according to the survey, 44% of respondent households said parents played games with their kids on a daily or weekly basis.

Regarding gender, 57% of PC games were bought by women although 58% of players are men. Take note, boys, that's a lot mums

# If the PC stats surprise you, take into account puzzle, trivia and board games being the most popular games offline



and plenty of grrl gamers.

If the PC stats surprise you, take into account puzzle, trivia and board games being the most popular games on and off-line. Never underestimate the power of Solitaire and Spades to skew surveys.

On consoles, boys still rule with



Family Affair: You're doing it all wrong, dad! Here, let me have a go

a mighty 72% to 28% split, with action as king of genres with 51% of players picking it as their favourite.

Thirty-seven percent of people play games online which is an increase of 7% from last year. Puzzle, trivia, card and board games make up 56% of what people are playing online. This is followed by

action, sports, strategy and RPG making up 20%. Persistent massively multiplayer games come in at 7% and miscellaneous amusement making up the rest.

So it would appear that games are not actually kids stuff anymore and fortunately the IDSA have the results to prove it.

#### FREE SPEECH

In the United States, a Court of Appeals has overturned a previous ruling that denied the right of free speech to all computer and video games. In announcing the new ruling, the court said: "If the First Amendment is versatile enough to 'shield the painting of Jackson Pollock, music of Arnold Schoenberg, or Jabberwocky verse of Lewis Carroll,' we see no reason why the pictures, graphic design, concept art, sounds, music, stories, and narrative present in video games are not entitled to a similar protection. The mere fact that they appear in a novel medium is of no legal consequence." Hurrah for that!

o, just exactly what IS going on then? First, came the announcement that three of the four major hard drive manufacturers - Seagate, Hitachi and Maxtor - were recalling 40GB and 80GB hard drives due to soaring failure rates.

Taiwanese news site, DigiTimes, reported breathlessly the Big Three had decided to pull their drives off shelves due to high failure rates and hordes of customers queuing up to return their drives.

DigiLife blamed new manufacturing processes not fully understood by

NO HDD RECALL

# There's nothing wrong with your drive, honest

Anthony Fordham

CLARIFICATION

Last issue we reviewed Vietcong

and expressed concern regarding

numerous performance issues. The

code we reviewed was the final, US

retail version which unfortunately

shipped with several bugs that

adversely affected the game's

Chinese factories, which it claimed made most of the drives. The site also said as many as 15,000 defective drives had been released.

A few days later though, it was all over. Apparently, the Chinese source on the story had got it spectacularly wrong. For a start, Maxtor doesn't build drives in China, although it is ramping up a factory to do so. And Hitachi only makes 40GB drives on the mainland, while the supposedly also affected 80GB drives are in fact made elsewhere.

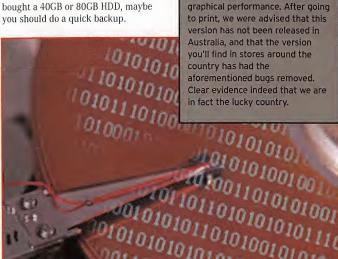
And that's not all - the meat of the recall story centred around all the drives being manufactured by the same factory or the same family of factories, when, in fact, the components are made all over the place, and the first they see of each other is when they appear in reseller warehouses.

Seagate was particularly scornful of the story, branding it "ridiculous to claim that all major manufacturers could be affected by the same error."

The error in question was supposed to have been a rash of bad sectors and

Seagate branded the story as "ridiculous to claim that all major manufacturers could be affected by the same error." problems formatting the drives. Two of the three manufacturers said none of these especially high incidences of the errors were occurring.

Perhaps tellingly though, Maxtor has neither confirmed nor denied the original claims of a recall, or come out to reassure its customers. But, just to be on the safe side, if you've recently bought a 40GB or 80GB HDD, maybe you should do a guick backup.



Scare mongering: Nothing wrong with the Big Three



# DEVELOPER DIARY

# **BROKEN SWORD: THE SLEEPING DRAGON**

the plane,

Entry #2

This month, the pressure was on. We ran headlong into a serious crash between 'script lock' and E3, the annual industry exposition, both of which coincided at roughly the same time. Subsequently, finding the time to document the trials and tribulations of the game's development proved more difficult than ever. Apologies for the delay between this and the last diary

Script lock, the point at which the script is 'locked', is a key milestone in the development of an adventure game. It allows the English voice recording process and the translations to start. Normally, the foreign language versions define the critical path - so the earlier this can take place, the better.- Script lock can only happen once the logic has been implemented and requires a careful balance between the creative desires for a great script, and the necessary functionality of the logic. We are very pleased with the script - believing that it is the strongest so far. We've retained the essence of the previous Broken Sword titles whilst pushing the narrative beyond anything we've done before. Having the benefit of having many of the original team many of us worked on both the originals - has ensured a continuity.

Next comes the recording. We are delighted that Rolf Saxon will be returning as George Stobbard in this third instalment of the series. Rolf is a really interesting character, whose work in films and TV has been diverse to say the least. Prior to recording the original Broken Sword, he appeared in Mission Impossible. Interestingly, he has also narrated Teletubbies! All this proves what a talent he is, blending seamlessly into a range of

really pleased he's back on board. I'll let you know how the recording goes next time.

The other major event this month was E3 - the Electronics Entertainment Expo, which takes place in Los Angeles. Stable playable demos needed to be created on PC and PS2 for both THQ, our publisher in Europe, and The Adventure Company who will publish the game in North America. All hands were on deck to complete sections of the game which would prove representative of the finished title. So we polished up the initial Congo section, and introduced an approximation of the 'action event' into the Paris section. Despite it being a little rough around the edges, we were pleased with how it looked. However, our opinion counts for little. It was the international press we needed to convince. This would also be the very first time that actual gamers and Broken Sword fans would get their hands on the game.

Judging by the feedback we had, we're heading down the right track everyone seemed delighted by the work to date and, amongst other accolades, the game was awarded 'adventure of E3' by Just Adventure. Tony Warriner was present at most demonstrations - and he's been able to reveal feedback about how people actually played the game. Having grown with the title from concept to playable code, we're often guilty of remaining too close to the game; we can't fully appreciate any little niggles new players might experience.

Tony noticed that players were initially drawn to the game by the

graphics and then were immediately impressed by the interface this is great news, as a unique

art style was something we

were aiming for. Once out of players were already hooked by the gameplay - the pace of which in the plane is ideal and very often they would continue playing either all the way through to Paris. People liked the Paris gameplay, in particular the Action Event, which worked superbly - despite the fact it still was a little rough. This pleased us

the most. The Action Events, as I've mentioned, are a fairly radical element of the game and are designed to add to the cinematic feel of the game. The unanimous response was that the fuss about the introduction of a supposed 'action' element was wholly unfounded. By chance, I met the buyer of one of the main UK retailers who had loved the previous games. He expressed his concerns about

the new system, and I was delighted to be able to show him the game - after which he was completely reassured. Tweaky points were also noted. For example, most people tended to scroll the inventory icons in the wrong direction, so this will be reversed.

So while the timing of E3 couldn't have been worse, it did provide us with the first proper feedback and gave us the

opportunity to analyse people playing. In that sense it was invaluable.

This month, as I've mentioned, we're heading off to the studio to record the script. We're in for five days of relentless recording. We'll try and supply some rough cuts for the

George



22 PCPP

# OZFORISP GAMING ISP

LOW PINGS - HIGH FRAGS - BIG COMMUNITY UNLIMITED DIAL-UP & ADSL

CALL: 1300 134 081 or Sign-Up Online



Gamers Connecting Gamers http://www.ozforces.com

All the bits that we cram in at the last moment with Anthony Fordham

# **PC CASE HANDLES**

Price: \$15 Distributor: PC Case Gear Contact: pccasegear.com.au

The really cool thing about the metal suitcases insane criminal masterminds carry their nuclear weapons around in are the handles. Big, solid, no-mucking-around handles. It's the handles that say "there's a sixty megaton bomb in here, Mr Bond".

Now you can have the same handles on your PC. For a mere \$15 you can obtain either a non-recessed handle or, for the truly chic, a

recessed model that looks exactly like the handles on the aforementioned suitcases.

They come in either silver or black, and while silver is more authentic, black does go very nicely with a range of modern cases. Be warned though, that you will have to cut a hole in the top of your case to install the recessed handle. But then, style is nothing without sacrifice.



# **PORTABLE DVD PLAYER**

Price: \$836 Distributor: EYO Contact: eyo.com.au

The problem with most portable DVD players is they cost more than \$2000, so you might as well save up an extra grand or so and buy a whole notebook PC and get DVD playback plus a whole bunch of other functionality.

Enter this neat little device from MAG. Sure, it's still hardly cheap, but it breaks the grand barrier, and there's no way you'd get a notebook with decent DVD playback for even double this price.

It has a 7 inch screen which is hardly massive, but in cramped conditions, such as a bus, it's perfectly large enough for personal viewing. There are also a slew of outputs for connecting it to a TV while at home, although portability is its strong suit and it lacks the hardware acceleration most set top DVD players now



# **WATERCHILL CPU COOLER**

Price: \$99 Distributor: PC Range Contact: pcrange.biz

As we mentioned last issue, we love complicated cooling solutions and water cooling gives the most complicated cooling of all except actual liquid nitrogen. But that's if you're after that exciting sense of danger you can only really get from pumping litres and litres of destructive and conductive fluid through your \$3000 PC.

This kit stuck out for us because of its completeness. It includes innumerable little seals and washers, a reservoir and plenty of mounting brackets to secure it in your case.

Performance? Well, we haven't tested it rigorously, although unlike some coolers it also includes a low-speed low-noise fan and some electronics to manage it, so we would hope for some decent results. However, you might like to test it on a less than valuable back up system first.

Oh yes, there's also a little bottle of anti-algal water treatment. Now that's attention to detail.





Price: \$6499 Distributor: Sony Contact: sony.com.au

include.

O k, so you've won second division lotto and you want to spend a big chunk of cash on a seriously large TV. But is plasma really the answer when you can't play console games on it due to risks of burning it? Will plasma treat you right and allow you to connect your PC directly on indulgent rainy weekends?

Home cinema projection is the new future, and Sony is making more than a decent fist of it. The HS10 is smack in the middle of their widescreen projector range, and its big brother with a complicated product name is valued at \$11,999, so the price is quite reasonable.

It uses three LCD panels for red green and blue and focuses them through a single lens to provide a tasty image indeed. It's smallest useable size is 100cm and it can throw a picture up to 700cm measured diagonally. That's seriously big. This is a serious projector.

# 5.25" USB CADDY

Price: \$89 Distributor: PC Range Contact: pcrange.biz

Picture this situation; you live in a share house with a bunch guys and you all have PCs cobbled together from hand me down bits and as a result you can only afford one CD burner. Put the machines on a network and share the drive, you might say, but what about those... uh... intimate backups that

sometimes need to be done? You need to turn that internal IDE drive into an external USB 2.0 device, and the USB Caddy is the critter to help you do that. It has internal connectors for power and IDE while on the outside it has a USB 2.0 port

and a power plug. That's right, external independent power. And, of course, if you don't have USB 2.0, it will still work with plain USB, just slower is all.

# SAMSUNG 17W WIDESCREEN LCD

PHILIPS

Price: \$1399 Distributor: Samsung Contact: samsung.com.au



he 172W is a 17 inch screen with the width of a 19 inch. It's native resolution is 1280x768, which is as near as damnit the 16:9 ratio used by DVDs.

So naturally, this monitor works its absolute best when viewing DVD movies or DivX encoded at the relevant aspect ratio. It also works really well for desktop work you can shunt your MSN window or whatever to the side while browsing or, in my case, writing.

Unfortunately, with games the 172W is less spectacular since everything gets a bit squashed. Still, after a while I didn't even notice it, and the screen is so wonderfully bright and crisp it doesn't matter anyway.

Unlike so many LCDs these days, the 172W includes DVI input for crisper, clearer digital imagery. Banish those redundant D/A and A/D convertors!

# **BLUE XASER 3 CASE**

Price: \$299 Distributor: PC Case Gear Contact: pccasegear.com

B lack is godly, but blue is good. A blue case stands out, is bright, makes a statement about something or other and most importantly impresses women. That's

a scientifically proven fact, you can check it on... uh, I can't quite recall the URL at the moment, but it's there.

Anyway, this is simply a blue version of Thermaltake's excellent Xaser 3 case, and includes such niceties as a front panel fan and temperature controller, a vertically mounted LCD display on which you can write rude words, and famously funky styling.



# MOTHERBOARD

Price: \$200 Distributor: Altech Contact: altech.com

oo many case mods that heavily feature windows are let down by an uninteresting motherboard. At last, the manufacturers are starting to pop out some boards worthy of showing off. The Violet Eyes is simply a purple version of Soltek's worthy SP-86SPE Springdale Pentium 4 motherboard, which includes such goodies as support for 800MHz FSB CPUs, DDR400 RAM, Serial ATA and even has an onboard IR controller for remote. But it's the colour that sticks out for us the most - a brilliant. almost



# **USB MULTIBAR**

Price: \$160 Distributor: Altech Contact: altech.com

here are a number of little USB drives floating around at the moment, mostly built around a stick of flash memory in a long configuration and offering some music playback, as well as HDD functionality.

Ah yes, but does your 128MB USB HDD of choice feature not only continuous voice recording but also a laser pointer? No? Then you need Seitec's Multibar because it does.

That's right, record your most intimate thoughts using the built-in microphone, listen to a few tunes for further inspiration, and then point out interesting architectural features with the laser pointer.



# **PDA WATCH**

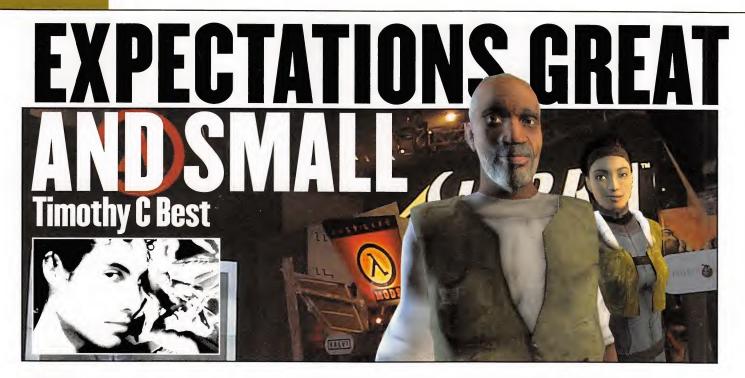
Price: TBA Distributor: Fossil Contact: www.fossil.com

k, so it's not out yet and it will probably cost a stupid amount of money when it does come out, but here at last is a watch that will allow you to relive all your Dick Tracy fantasies except the one where he actually calls people up on it.

The watch uses a cut down Palm OS 4.1 and has a stylus built into the band. It has functions for address book, contacts list, memos and 2MB of RAM for, as they put it, years of appointments. How horrid.

The only problem with this thing is that it's shamelessly right-handed in design. What about us lefties and the Europeans? Also, Fossil will be bringing out a Windows based PDA watch. Shudder.





t's funny how you get used to things, especially bad things. The smell of your old dog, the high-pitched whine of the computer next to your bed, or even the way Friends episodes get worst every season. It's the brain's defence mechanism against insanity and endless bouts of ranting and complaining.

Every year, E3 rocks around and highlights this special power. We see games pop back onto the radar that should have been out last year, we see new games making the same promises we heard about last year and the year before, but never materialise, and we see sequels of games our brain's defence mechanism deleted upon detection.

#### A Tale of Two Half Lives

Sometimes, just rarely, we see games that remind us of the promises whispered in titles, but were later lost to the tides of delayed time. One of these games was Half-Life 2. Back in 1998, Valve hit us with the first Half-Life and soon poached the talented developers behind the class-based Quake mod TeamFortress to make the squad-based multiplayer game TeamFortress2. As the years rolled by, it never appeared. Everyone knew that Half-Life 2 would have to come after the success of the first, but more years rolled by and still Valve didn't coughed up a new game.

The original Half-Life had appeared at three E3s in three different forms and one the strengths of Valve's millionaire owner and his available money bags was the company took the time it needed to produce an innovative game.

When Half-Life finally came out it was a shot in the power-gloved arm of singleplayer first-person shooter games. Before Half-Life, the market had been saturated with so many Quake and Unreal clones, people were beginning to believe the only real future FPS had was in multiplayer deathmatch games where social interaction and human play overrode the missing artificial intelligence and storylines.

### **Beauty and Brains**

Not only was Half-Life pretty, but it had amazing enemy AI, where soldiers would act in squads, call for back-up, flank and lay down covering fire. It set a new benchmark that had PR teams scurrying about to avoid it for years to come.

After a while, we started to see Half-Life as a freak of gaming, much like System Shock, Civ, Zelda, Soul Calibur, and now Deus Ex... something to be cherished, but not something to expect every new game to build upon. Shooter after shooter came out with prettier graphics, but they were more brawn and less AI brains.

When E3 rocked around this year, the Half-Life 2

demo had fans lining the aisles, often waiting over an hour to catch the 25 minute show.

Sure, the game looked fantastic, but then again so did most of the triple A titles on show. However, HL2 stood out amongst the sea of chaos and light because it wasn't a razzle dazzle of polygons - it was that something else that brings a game world to life.

Where most games churn up endless CPU cycles on graphics geometry, HL2 dared to spare some power for those often skimped-on aspects of physics and Al. Once again, Valve is making the point that more polygons and effects does not necessarily make up for classic mistakes made with FPSs.

# HL2 stood out amongst the sea of chaos and light because it wasn't a razzle and dazzle of polygons - it was that something else that brings a game world to life

In the demo, we saw Gordon wrench up a radiator and use it as a shield and then sling it at a foe. We saw him block doors with tables, which were soon pounded to splinters, and knock down cranes to use a ramp.

Ask 99% of developers why they aren't creating barricades and blasting open new doors in FPSs and you'll get the same answer: it causes Exploding Head Syndrome for the pathing AI programmer.

When lure and kill tactics still work in most games, imagine how much more innovative it is to have enemies working out whether it is quicker to bash through a blocked entrance, find a window or arrange a search for back doors. However, with limited resources the rewards were never seen as being worth the cost.

I'm sure you'll find a host of amazing HL2 features in the E3 section, but 1 want to point out the game took on the too-hard baskets of interaction, physics and AI. HL2 faced the challenge and it absolutely blew away professional gamers. When you think what Half-Life did five years ago, HL2 is a natural evolution - a result so stunning when placed next to games that can't push its boundaries hard enough beyond the standards set by HL and Deus Ex.

### A New Trend?

It seems that an amazing looking game is now very much expected - and most of the games that had raised the temperatures in their corners of E3 were ones that declared risky design. S.T.A.L.K.E.R. Oblivion Lost makes heavy use of Al to independently generate the paths and perils for a 100 odd rival stalkers plus mutants, calculating their trades, co-operation, rivalry and animosity to provide endless unscripted action for the game. If S.T.A.L.K.E.R. stays true to its current philosophy, then a bad AI means a lot more than thugs getting stuck behind tables - it means GSC Gameworld doesn't have a game.

The Halo port also caused quite a stir, which is amazing when you consider the graphics is actually two years old with DirectX 9 effects and the resolution bumped up to PC standards.

It's the beautiful design, careful re-balancing to match the superior mouse and keyboard controls, as well as the addition of a worthy multiplayer component that really turned heads.

Rome: Total War, also had a big impact, not because it can push more polys, but it is what it pushes those polys into that had everyone excited. Rome's experience is one of huge 3D battles with thousands of troops crashing through cities you built from scratch. Zooming in shows the conflict on an individual scale, right down to seeing War Elephants smash through waves of infantry on a realistic war scale. Once again, it's the brain not the brawn that has fired the buzz.

Then we had Deus Ex 2 and Thief 3, both of which looked beautiful, but also expanded on the genre breaking gameplay of their predecessors. Finally, we have Evil Genius, a game which surprised and delighted a lot of pretty jaded people. It's from that wacky bunch at Elixir who had been promising us the epic, freeform and revolutionary Republic: the Revolution for years now. It places players in the shoes of a 70s super villain of the type Dr Evil so convincingly parodies. Think Bondstyle secret bases, a list of NATO-style targets to choose from, various themed henchmen to recruit, Johnny English to kill, evil empire economic management and sims style hide-out design. Players are even rewarded in criminal reputation for all those silly "Dad, I can get a gun right now," death traps that Scott just doesn't get.

### Miss E3 2003

In an E3 sea of the usual sequels (Doom 3, Half-Life 2, EverQuest 2, Sims 2), licensed properties (Greyhawk, Matrix Online, D&D and Middle Earth Online) and spin-offs (Call of Duty, Halo, World of Warcraft), there were also signs of something else: games banking on brains. While the swim suit still gets you into the pageant, it's beginning to look like success in the talent quest will make you stand out. Expect more.

# WATCH THE SHOW. LIVE THE GAME.

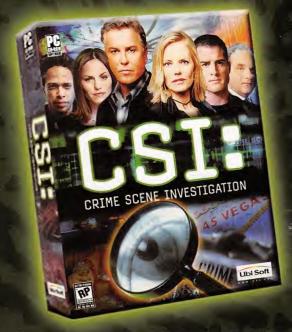
RRP \$49.95



### CRIME SCENE INVESTIGATION

Hunt for the truth as Grissom, Catherine, and the entire CSI team stand ready to assist you. Go deep into the details of five brain-twisting crime scenes, and break down the evidence with high-powered forensic equipment and cunning wits.

Don't just watch the action. Live it.

















W W W . U b I . C O M

©2002 Ubi Soft Entertainment. All Rights Reserved. Ubi Soft and the Ubi Soft logo are trademarks of Ubi Soft Entertainment in the U.S. and/or other countries.

(BS and the USS eye design are registered trademarks of CBS Broadcasting Inc. CSI. Grime Scane Investigation and related marks are trademarks of CBS Worldwide Inc.

Follow the evidence Tuesday nights



# SICK OF THE SERGEANT

# The Guerrilla Gamer



f you've ever played a first person shooter that has any sort of ties to the military, then you'll have encountered the stock cliche of all FPS training missions, the Gunnery Sergeant.

He's even more ubiquitous than mindless jumping puzzles or a grenade launcher that never gets fired even once in the course of the singleplayer campaign. His job is to yell at you until you get bored and take yourself through the moronically simple 'training' level provided grudgingly by the developers because the publisher told them having to press space for jump and ctrl for crouch was too complicated.

Thing is, all the Gunnery Sergeants in all the FPSs from Half-Life Opposing Force to the recent and almost playable Vietcong are based on the one guy - R Lee Ermey from Full Metal Jacket.

In the film, Ermey shouts, screams, pops veins and bastardises a bunch of US teens while extolling to them the virtues of fighting in Vietnam. He eventually gets his brains blown out by the fat recruit who had previously been beaten up by soap. Watch the film, you'll get it.

Every training mission sergeant - and I mean EVERY - is exactly like R Lee Ermey. In some cases, he IS R Lee Ermey. The Gunnery Sergeant role in FMJ was clearly a real career killer, like appearing in The Bill for more than one season. Every time R Lee Ermey has acted since FMJ, it's been a reprisal or tribute to his original role.

Even The Frighteners, a fluffy ghost story starring Michael J Fox, had Ermey appear as a militant ghost who demanded Mikey get down and give him 20. Or

possibly 25.
In any
case, you'd
be forgiven
for thinking
that R Lee
Ermey must be
right pissed off
and sick to



death of being asked to read yet another script in which he appears as a gun-toting, spit-frothing clone of all his previous roles.

And yet, when you visit www.rleeermey.com you find not the poignant and tender autobiography of an actor with remarkable range, a victim of the Hollywood typecasting machine, but instead a self-indulgent merchandising machine, grinning his way through a hundredfold US Army photo opportunities.

Yes indeed, R Lee Ermey appears - from his website at least - to ENJOY being cast as the archetypal arsehole sergeant. This despite the fact that everyone KNOWS drill sergeants and other training officers are in reality more like surrogate mothers, tenderly wiping away the tears of frightened recruits and bringing milk and cookies to privates with the sniffles.

### **Buy Ermey stuff!**

Careful readers will have noticed a passing reference to merchandise not two paragraphs ago, and indeed www.rleeermey.com offers a veritable smorgasbord of interesting products, appropriately themed.

Why not kick off your day, every day, by rolling over in bed to gaze at a 12" R Lee Ermey motivational figurine? That's right, every time you open your eyes you can see a large stuffed doll that vaguely resembles an obscure US actor, dressed up in military gear. And yes, it looks gay. What's more, it has a 60 second sound chip that will "kick your rear in gear" according to the pamphlet. And Ermey personally signs each one he sells! Why, he must have to sign hundreds of thousands of these things, every day!

Perhaps dolls are not your style. You can also choose from a wide range of T-shirts decorated with pictures of military hardware and slogans such as "MOAB-Baghdad Buster". Wow, comfortable,

stylish AND topical!

Or maybe you'll think R Lee Ermey's cartoon sidekick, Uncle Slam, has a more interesting range of screen-printed objects such as a the classic white T, and also coffee mugs. Uncle Slam is a ridiculously

proportioned version of the famous Uncle Sam recruitment poster, and keeps the beard and stripy hat but ditches the frock coat in favour of tattered, Arnie-style fatigues and huge guns. Uncle Slam also has a pet American Bald Eagle which sits on his shoulder and - this is the cool part - smokes a cigar! Probably a CUBAN cigar! How cool is THAT? Suck it down Castro, you grey bearded old pinko!

It's not entirely clear what Uncle Slam's role is but presumably he shows those clowns in Congress a thing or two about how to take the fight to the terrorist bastards and the French.

### **Ermey bored?**

Probably the best thing about R Lee Ermey's site is that everything is REALLY SIMPLE. That's right, having a brain is entirely optional when ordering from R Lee Ermey, every input box has some kind of disclaimer or explanation about how you don't need to add prefix numbers, don't need to use a pen to write the numbers on your screen, that the little tray that comes out of your PC when you push the eject button the CD-ROM is not a coffee cup holder, that your left shoe goes on your left foot and of course, etc.

There are even discounts for army personnel, and if you're in the army you can have your R Lee Ermey products posted to a PO Box on the base. Normal civilian scum have to give a valid street address.

Finally, there's the R Lee Ermey "Gunny" military auction function, where a simple click takes you to R Lee Ermey's private eBay zone where you, like dozens of other malformed gunheads, can bid on such things as genuine army ranger bootlaces or the bit of metal that flies out the back of a tomahawk missile battery with "time to buy more missiles!" written on it in crayon.

### **Ermey Battle 3D**

Personally though, it would give me great pleasure to play a game exclusively themed with R Lee Ermey content. I would like to hunt down and viciously kill a digital representation of each and every R Lee Ermey fan, and then in the second part of Level 1, I would like the opportunity to urinate on a US flag until I get savagely beaten by a pack of off-duty marines. Then I want to get hauled up in front of R Lee Ermey himself in a kind of boss confrontation but in a chilling twist of fate, I would get to be the towering Satanic demon king and R Lee Ermey would have to run around and around the arena armed only with a combat knife while I tread on him repeatedly.

All emails about how R Lee Ermey is in fact a really versatile actor and has appeared in such non-military themed films as Seven, Fletch Lives, The Siege of Firebase Gloria and the upcoming remake of Texas Chainsaw Massacre (he plays the chainsaw) should be directed to david(snip! - Ed)@next.com.au.

One more thing, R Lee Ermey is only an HONORARY Gunnery Sergeant because he got shot in the arse in 'Nam and had to be shipped home early. And he has a TV show. Where he talks about guns.



# Sport of Kings



This unique and realistic management and racing simulation takes



# **THUNDERBIRDS ARE GO!**

# Stuart Calvin



pgrading an AMD system might sound as easy as buying a faster CPU, but it depends on the type of CPU socket (Slot A or Socket A), the motherboard's chipset support and the PCB revision, which provides the wherewithal for the 'Stepping' introduced along the processor pathway. After you take the CPU out for a bit of look-see, identifying your processor is as easy as visiting www.amdboard.com/amdid.html. Do you have a K6-2 processor? These are Super 7 or Socket 7 pin-outs and, unless it's mounted and framed on the wall, you're simply not allowed to read this magazine and possess a K6 processor. The processor began its short life in May 1998 at 266MHz and by February 2000 only ran to 550MHz. These were good for lowend to medium-capable systems and notebooks. For the time being, you will have to put this rig to one side and read on.

### **How it works**

The most common upgrade question concerns the Socket A Duron. This CPU, the Celeron of AMD, was produced in three flavours: the mobile Camaro; the stripped-down Athlon (Athlon Select: Spitfire core) up to 950MHz; and a stripped-down Athlon Thunderbird (Palomino), known as the Morgan core, from 1000MHz. In essence, the Morgan had L2 cache on-die for better performance. The Duron began life at 600MHz in June 2000 and ended at 1300MHz in January 2002. They all run on a double-pumped 200MHz Front Side Bus (FSB), are built on a 0.18Ê process and require 1.2-1.75V to power up. It would be difficult to find a motherboard that runs a 600MHz Duron but couldn't run the 1000MHz Morgan core. For example, the original Microstar MS-6378 motherboard supports the Spitfire and Morgan Core up to 1000MHz, but you need PCB Revision 2.0 or later to run the Duron 1100MHz and faster processors. Anyone with a Gigabyte GA-7ZXC with PCB Rev 1.0 and BIOS F6a can run all the way from a Duron 600MHz to an AthlonXP 2600+. On the other hand, those with a GA-7ZX-1 have their luck run out at a Thunderbird 1400MHz on a 200MHz FSB. Most ASUS A7 series of motherboards will run any Thunderbird without worrying about a PCB Revision number. David Thiele's Soltek system, described in this issue's Letter of the Month, is an excellent example of what can be done to improve a basic system running a medium speed Duron. Thirteen or fourteen hundred MHz is not an unreasonable 'ask' for most Duron systems. But, there's more than free steak knives if you read on...

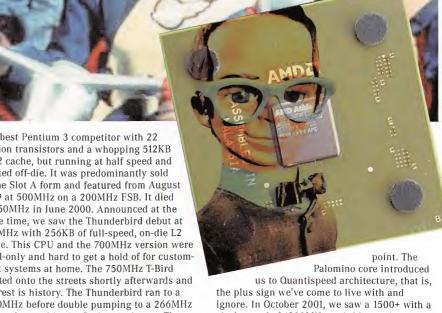
The veritable K7Athlon was available in several forms. The Professional was AMD's first and best Pentium 3 competitor with 22 million transistors and a whopping 512KB of L2 cache, but running at half speed and located off-die. It was predominantly sold in the Slot A form and featured from August 1999 at 500MHz on a 200MHz FSB. It died at 950MHz in June 2000. Announced at the same time, we saw the Thunderbird debut at 650MHz with 256KB of full-speed, on-die L2 cache. This CPU and the 700MHz version were OEM-only and hard to get a hold of for custombuilt systems at home. The 750MHz T-Bird blasted onto the streets shortly afterwards and the rest is history. The Thunderbird ran to a 1000MHz before double pumping to a 266MHz FSB and stayed in the Socket A pin-out. The 1000MHz and faster Athlon processors were available in both 200 and 266MHz FSB models, but life as we knew it, stopped at 1400MHz in June 2001. The iconic 1.4 T-Bird is still found in

### Thiele's Soltek system, described in this issue's Setup, is an excellent example of what can be done to improve a basic system running a medium speed Duron

many, many game systems, but is, I suspect, being replaced by AthlonXPs on compatible boards. Note, for older CPU owners: If you have a board without the proper BIOS for your new, faster CPU - the motherboard will not POST or boot in most cases. You will have to use a standard Thunderbird or Spitfire chip to flash the BIOS to the version with the Palomino/Morgan support. This is a hassle if you are buying your system components new and do not have your old processor, a spare or can't borrow one.

### The Athlon XP

This one is a mixed beast, in a number of ways but, fortunately, most AthlonXP-ready motherboards don't care as long as there is a BIOS to suit - PCB Revisions are almost a moot



clock speed of 1333MHz and this version, built with an 0.18Ê process, on a 266MHz FSB, running at 1.75V, stopped at 2100+ (1733MHz) in March 2002. In April 2002, we saw a 0.13Ê Thoroughbred 1400+ (1200MHz) running to 2100+ (1733MHz) on a mix of 200/266 FSBs. Also in June 2002, we had a Thoroughbred-B with a ninth metal layer and a few more million transistors. The Tbred-B started at 2200+ (1800MHz) and runs to 2800+ (2250MHz), missing 2300+, which I thought was a candidate speed for a Barton core (512KB cache). The 2600/2700/2800 Tbred-Bs are on a 333MHz FSB (double-pumped 166MHz); there's also a 2600+ on a 266MHz FSB - hehe, confusing, eh? In February 2003, AMD tipped us on our heads again by releasing the Barton core, which confusingly, had Quantispeed ratings of 2500+ (also missed in the Tbred-B core), 2800+ (available as a Tbred-B) and 3000+, which has a lower clockspeed than a Tbred-B 2700+. Finally, the Quantispeed architecture makes sense, sort of. The 512KB of full-speed cache is a winner for Office applications, but not necessarily gaming. Software developers really need to take this big cache into account before your game ranking can improve. Is this less difficult than upgrading an Intel system? Well, in most cases, the answer is, yes. The incompatibility between Intel's Socket370 and Socket478 is an absolute showstopper at 1400MHz on a P3/Celeron. With a bit of detective work, luck and attention to detail most AMD systems can be migrated to something noticeably better for less than \$300 and that, dear reader, could be fun.

THE CREATORS OF THE ANIMATRIX PRESENT THEIR MASTERWORKS ON DVD

# ANIMETHAT INSPIRED THE MATRIX

IF THE ANIMATRIX OPENED UP A WHOLE NEW WORLD, HERE ARE THE NEXT STEPS ON YOUR JOURNEY!

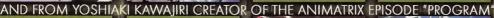






### GHOST IN THE SHELL

The inspiration behind the original Matrix, from Mamoru Oshii. An anime classic and the ultimate sci-fi thriller.





A century's end a treaty between the human world and the demon world is up for renewel...





### VAMPIRE HUNTER D BLOODLUST

Half human, half vampire, this bounty hunter tracks a teenage girl...







# NINJA SCROLL

The bloody, controversial and scintiliating sword play tale





# S. D. Transmission

GHOST SHELL

ir a balanda

M11- Million of 115 Marie and Other





### COWBOY BEBOP

It's about collaring villains and collecting cash! From Shinchiro Watanabe, creator of Animatrix Episodes "Kids Story" and "Detective Story".





WWW.MADMAN.COM.AU





# SUBSCRIBE

FOR YOUR CHANCE TO WIN A GEFORCEFX 5900 ULTRA AND A COPY OF MAX PAYNE!



We can't tell you how much these cards are worth exactly, because you can't even buy them in Australia yet. However, we're pretty sure they're going to be going for around \$900 a piece. What we can tell you is that the GeForceFX 5900 Ultra is the fastest consumer video card on the planet. Which is a pretty good reason for wanting one. It's also why you're going to make sure to subscribe to PC PowerPlay, because this month we've got three

of these super cards to throw your way, thanks to the men in white coats at Albatron and NVIDIA. Heck, it's only \$88 for a year's subscription (make that \$110 for the content packed DVD PowerPlay), and even if you don't win the card, you'll still be a winner. You see, you're going to save yourself around \$45 over a year of buying PC PowerPlay at the newsagents. What more can we say? Subscribe - it's the smart thing to do.

PLUS! You'll be needing the GeForceFX 5900 Ultra to play Max Payne 2, so why not prepare to play one of the year's biggest games by discovering where it all started. New subscribers will also be in the running to win not 3, but 25 - count 'em! - copies of Max Payne, courtesy of Take 2 Interactive. What better way to enjoy your new videocard than to christen it with one of the coolest shooters of all time!







www.nvidia.com

### CARD SPECIFICATIONS

- \* 0.13 micron manufacturing process
- \* 256MB DDR-RAM at 425MHz with 256-bit memory interface
- \* AGP 8X
- \* A cooler that isn't hella loud!
- \* NV35 core at 450MHz
- \* 27.2GB/s memory bandwidth

**TOTAL PRIZE VALUE: \$4000** 



### **WANT DVD?**

If you're an existing subscriber and want to upgrade your CD PowerPlay subscription to DVD PowerPlay, the cost will be \$2.00 per remaining issue. Just call on the subs number below to secure your upgrade. New subscribers, make sure you specify DVD in the form below.





# SUBSCRIBE NOW FOR YOUR CHANCE TO WIN A GEFORCEFX 5900 AND A COPY OF MAX PAYNE

### **SUBSCRIBE ONLINE! VISIT:**

http://publishing.next.com.au/subs

6 CD ISSUES AT \$48.00 INC GST 13 CD ISSUES AT \$88.00 INC GST

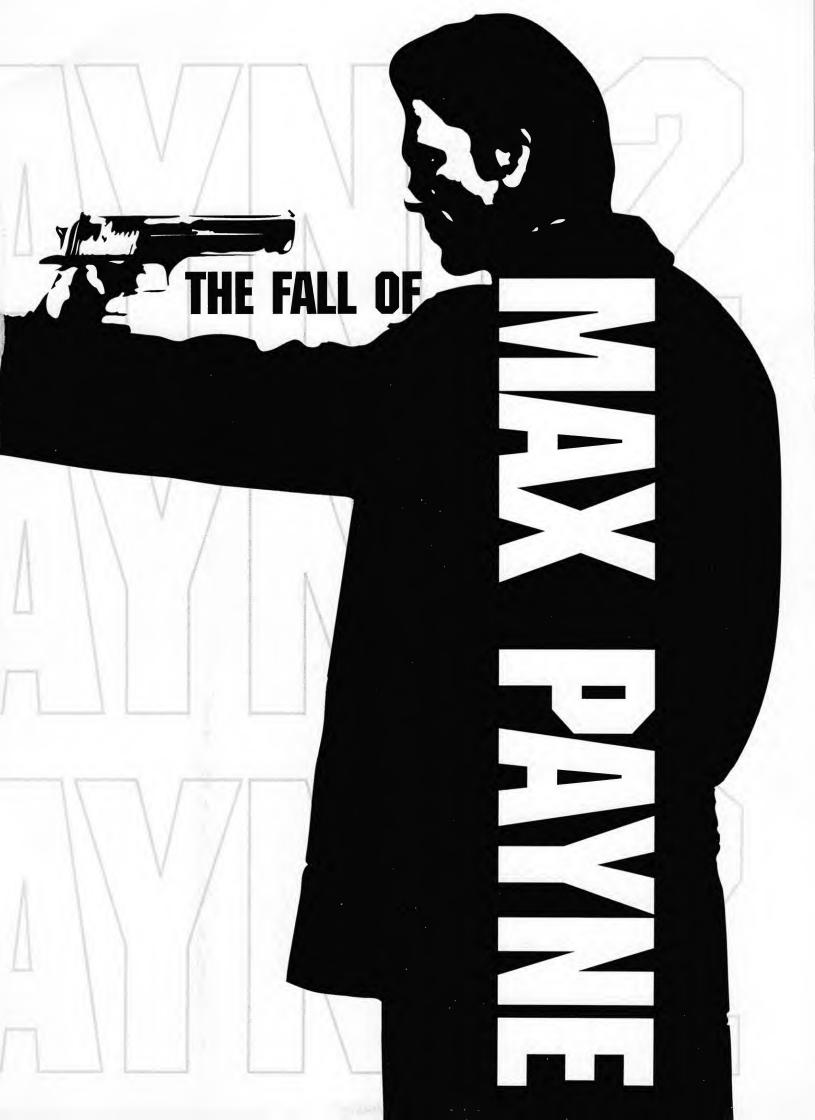
1300 36 11 46
MONDAY-FRIDAY 9AM-5PM EST

6 DVD ISSUES AT \$58.00 INC GST 13 DVD ISSUES AT \$110.00 INC GST

<b>Yes! I want to subso</b> and go into the draw for a chance to win a GeFoceFX 5		
New subscribers please tick:  6 CD issues at \$48.00 (inc GST) save \$11!  13 CD issues at \$88.00 (inc GST) save \$41!	New subscribers please tick:  6 DVD issues at \$58.00 (inc GST) save \$13!  13 DVD issues at \$110.00 (inc GST) save \$45!	
PC089		DPP089
Please tick:  I'd like to subscribe for myself and/or:  I'd like to send a gift subscription  Please print:  My Full Name:  My Address:  Suburb:  Postcode:  My Telephone #: ( )  My E-mail Address:	Enclosed is a cheque/money order made payable to Next Publishing for \$  OR Charge my credit card \$  Visa Mastercard Bankcard  Cardholders Name:  Card Number:  Expiry Date:  Signature:  Post to:  Subscriptions Reply Paid 634 78 Renwick St	
Please send a PC PowerPlay magazine subscription to:  Full Name:  Address:  Suburb: Postcode:  Telephone: ( )	At time of payment, the	Redfern NSW 2016 subs@next.com.au  blishing Pty Ltd ABN 88 002 647 645 his subscription coupon becomes a tax invoice. upon for tax purposes.
relephone. ( )	Offer only available to Aus	stralian and NZ Residents. Please allow 4-6 weeks for first delivery

TERMS AND CONDITIONS 1. Offer is open to residents of Australia and New Zealand except employees and the immediate families of Next Publishing Pty Ltd and its agencies associated with the promotion. 2. Only entries completed with these Terms and Conditions will be eligible. 3. Entry is by subscribing to PC Powerplay Issue #89 from within the magazine only. 4. Competition begins at 9am 2 July 2003 and entries close at 6pm 30 July 2003. 5. In determining eligibility the judge's decision is final and no correspondence will be entered into. 6. Winner will be drawn at Next Publishing at 9am 31 July 2003 and results published in PC Powerplay Issue #93 on sale 22 Oct 2003. 7. 3 winner will receive a GeForceFX 5900 RRP \$900 and 25 winners will receive a copy of Max Payne RRP \$50. Total prize pool is \$4000. 8. The promoter is Next Publishing Pty Ltd ABN 88 002 647 645 of 78 Renwick Street, Redfern, NSW, 2016. 9. The promoter is not responsible for lost or misdirected mail.







uring E3, we had the opportunity to attend a private showing of Max Payne 2: The Fall of Max Payne hosted by Rockstar and Remedy. If you were wondering why you hadn't heard about nor seen a single screenshot of Max Payne 2 until now, that's because the showing was for print media only and your PCPP representative was the sole Australian journalist to gain access. That "World Exclusive" nonsense on this month's cover isn't mere hyperbole; it's actually true this time. (Just don't mention Unreal 2, eh?)

First, we met with Rockstar's Terry Donovan, a management type who carries himself with the kind of hubris one can get away with when you've been responsible for tearaway success stories such as Grand Theft Auto 3, Vice City and, of course, Max Payne. He shook our hand firmly and said "Fuck" but once during the entire interview.

We began by enquiring about the seeds of The Fall of Max Payne.

"We had a rather interesting moment when the original Max Payne came out because I don't think anybody knew how big it was going to be," says Donovan. "We didn't; Remedy didn't. I mean, obviously everybody hopes for the sky, but normally the sky is like... ooh, a million units. Not 3.5 million.

"So, that does two things for you: it humbles you and it puts an enormous amount of pressure on you to do something better next time. Coming with that is the financial pressure of, 'Can you just do something very quick and can we all make some more money soon?' - normally from us to them [points at Remedy's Lake and lead designer Petri Jarvilehto, who chuckle in response while sitting on the next couch]. Remedy has a lot of integrity and they chose to resist any sort of pressure."

Jarvilehto later admits there wasn't any pressure anyway. Thus, the shackles of commercial imperative flung aside,





# REMEDY DECIDED THAT THE BEST COURSE OF ACTION WAS TO TEAR THE WHOLE GAME APART AND START AGAIN FROM SCRATCH, AND IF IT TOOK TWO OR THREE YEARS RATHER THAN TWELVE MONTHS, THEN SO BE IT.

Remedy decided the best course of action – impossibly stylish and impeccably hip action, to be precise – was to tear the whole game apart and start again from scratch. And if it took two or three years rather than twelve months, then so be it. They owed it to the fans, particularly those crazy Dutch guys who whooped and hollered and swore in inventive ways when playing Max Payne for the first time and then posted the experience on their website. Bless 'em.

Before we get the chance to see the game in action, Donovan wraps up his introductory comments by stressing the Rockstar approach.

"In terms of what you're going to see, I think the guys tell a pretty good story," he hints. "From a Rockstar perspective, we are going to get behind this in the way we get behind Grand Theft Auto. We have become very good at focusing on big titles. We tend not to spread ten titles and see what hits the wall and keeps running. We decide this is going to be it, so get fucking ready. [Laughs] That's our vibe."

It's an attitude that, thanks to the gazillion units GTA and Max Payne have sold between them, allows the developers under their wing, such as Remedy, a degree of creative freedom they might not enjoy elsewhere.

"You'll see that Remedy, without much prompting, have taken quite a few risks," Donovan boasts. "This is something that they could have done more of the same. But the very fact that there's a large poster there saying this is a love story is probably enough to tell you we're shifting a little left of centre here."

And with that, we shift a little left ourselves and follow Lake and Jarvilehto into the suitably darkened theatrette where we see the new Max Payne for the very first time. We make ourselves comfortable on the voluminous leather couch and look up at the ten foot screen

that almost consumes an entire wall. It's Max. But he looks strange. We glance at Lake then back at the screen. Max definitely looks different. He blinks, for a start. He looks around, pupils surveying the refuse of the neglected alley in which he stands. You can see the various muscles modelled in his face twitching and, well, doing what muscles do when they're put to work. You can see stubble, eyelashes, even pockmarks and strands of grey hair. I mention something about how exciting this is.

"We've been working on The Fall of Max Payne for two years now and this is the first time we've shown it to anyone," says Jarvilehto, slipping into the hotseat to demo the game. "So, this is kinda exciting for us, too."

While he's loading the demo level, Lake takes over, bringing us up to date on what's happened since Max's first outing:

"As you might remember, Max's loved ones were killed and he revenged their murders. I wish I could tell you that the man on the screen has been to hell and back, but he isn't really back from that hell. I mean, don't get me wrong, he is trying, but he might never be able to put that behind him. So, we had to think about this really hard. What could possibly drive him on after that [the first game]?

"The answer might surprise you, but if you think about it, love has been his motivator since the beginning – that's what led to the whole revenge business in the first place. So, The Fall of Max Payne is a film noir love story between Max, a cop, and Mona, a femme fatale murder suspect."

At this point, your PCPP representative raises his eyebrows in quizzical fashion. Film noir we can understand, as the first game was 'heavily influenced' by the genre in terms of mood, setting, narration and the theme of revenge. But a love story?



Sure, the femme fatale is a noir staple, but this is a videogame, dammit! We don't want no soppy romance shit in our games. Or do we?

"Now don't worry," Lake continues, knowing full well how we'd react to his opening remarks. "We haven't gone soft on you. The story is dark, tragic, and intense. And it's mostly in bullet time, of course. Love hurts, and you just know there couldn't possibly be a happy ending to it. Or could there?"

"Definitely not!" chuckles Jarvilehto. The pair of Finnish coders grin simultaneously, as if sharing some kind of strange and private Scandinavian joke. Look guys, I get it, ok? It's noir, no one's expecting redemption, let alone a heart-warming resolution. I smile, too, albeit belatedly.

Moving forward, Jarvilehto jumps into the demo level and, while giving us a quick tour of the map in fly-by mode, reveals all he's willing to say about the technology powering Max Payne 2. "When we started working on this title, we pretty much took the whole engine apart and started rewriting huge chunks of it. As you can see we've got shadows properly blending in with the radiosity lighting. We've improved the particle effects to a totally different level than of Max 1. Overall, we feel we're able to have totally different production values this time around."

And that's it as far as the tech is concerned. Later I'll try and sneak in a subtle enquiry when (hopefully) they're less guarded, but the muted response confirms this is something they don't want to talk about just yet.

"All of our actors have been cast

WE TOOK THE WHOLE ENGINE
APART AND STARTED REWRITING
HUGE CHUNKS OF IT. WE'VE GOT
SHADOWS PROPERLY BLENDING,
IMPROVED PARTICLE EFFECTS, WE
HAVE DIFFERENT PRODUCTION
VALUES THIS TIME AROUND...

from New York," says Jarvilehto, expanding on his production values theme. "Working with Rockstar, we've been able to find an excellent character cast for the game. Our technology lets us go into a pretty nice level of photorealism with the actors. Here's a couple of mobsters straight from the Sopranos cast... sorry, influenced by the Sopranos, I meant to say."

Clearly, comedy is taught from an early age in Finland. Sensing the tone of our conversation to be as light as it's probably going to get, 1 direct my next question at Lake. So, Sam, 1 suspect you're the man to ask about this. Why has Max got a different face?

Lake grimaces. He knew this question was coming. "Well, he's been through a lot, and we wanted that to show on his face. He's not significantly older, but time has passed..."

"Having your family killed and going on a revenge spree through New York can make you subjectively a lot older, as well," Jarvilehto adds, with now predictable wit.

Do you think it might end up confusing people, since he really does look quite different?

"I don't know," answers an honest

Lake. "You have to take into account that technology has moved forward, so the face and animation is a lot more detailed. It would make him look different in any case. And this time around, we have also been fortunate from the beginning of the project to have the opportunity to cast professional actors for the roles. That's really something we've been very, very happy about."

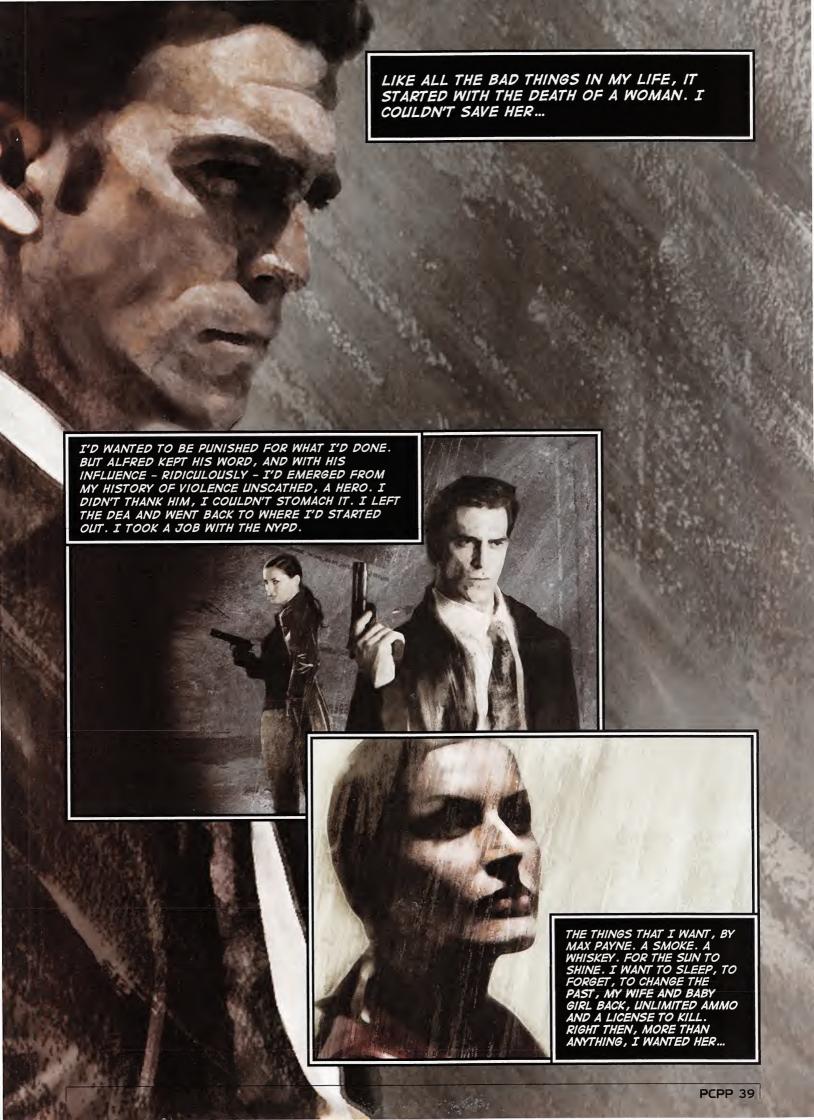
Surely no one was more pleased than Lake himself. But such ruminations are left for another time as Jarvilehto concludes the fly-by tour and launches into the game proper. The familiar Max Payne elements appear intact: gangs of losers and thugs populate some stunningly seedy environments, while Max lunges and pirouettes through one blisteringly frenetic shoot-out after another. It's without a shadow of a doubt one of the most exhilarating sequences we've ever witnessed in a game - and it's but one ordinary moment plucked from one extraordinary title. After the balletic violence reaches a deafening crescendo, Jarvilehto again floors us with a sly aside.

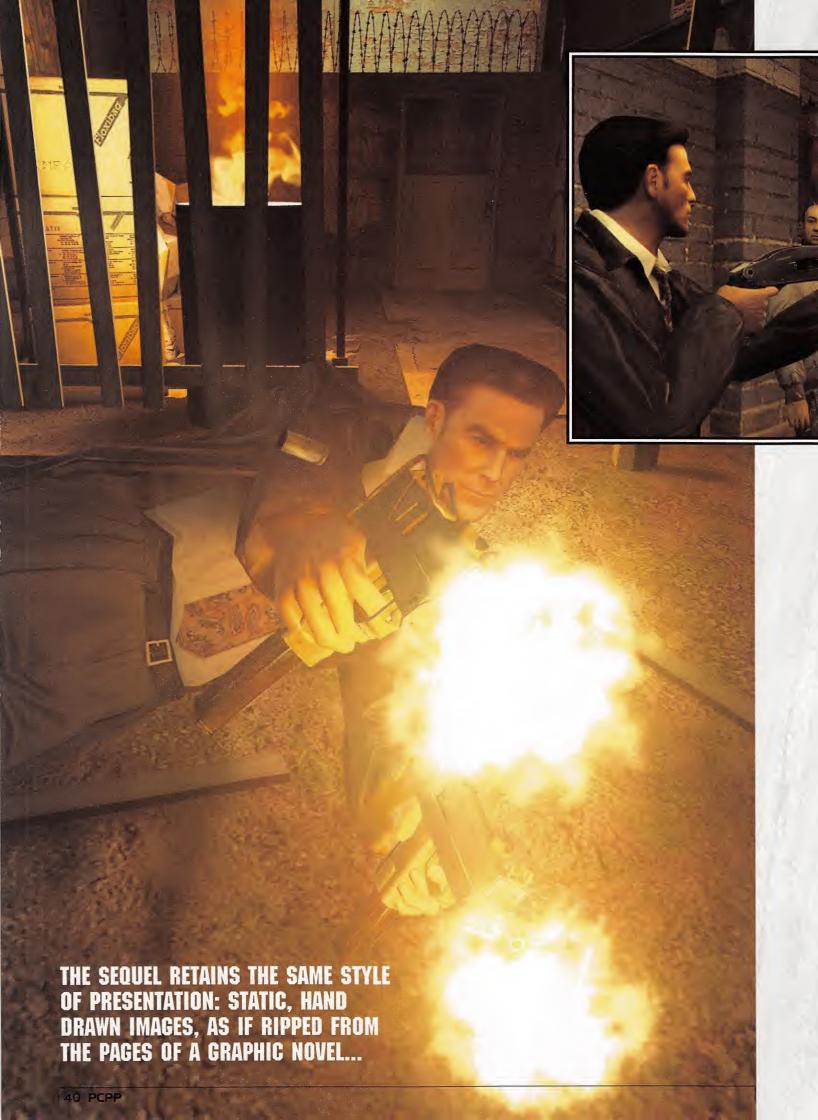
"Max Payne is certainly about telling a story," he deadpans.

And right on cue, Lake chimes in: "Max Payne began with Max being framed for the murder of a fellow officer. In the beginning of The Fall of Max Payne, Max again stands accused of the murder of his police partner. But this time, he can't shrug it off as a frame-up. This time he confesses to doing it. Like the first, Max 2 is a long flashback as Max narrates how he got into the grim situation we now find him in. The game is a stand-alone story. You don't need to have played Max 1 to get started. That said, for those who have played Max 1, all the characters that survived - few as they were - will return.

"Max 1 was a good school for us. We learnt a lot doing it, and everything we learnt we've put into the sequel. For instance, we were very wasteful with characters. We introduced a lot of characters in the first game only to kill them off immediately afterwards [laughs]. The plot of the sequel is much tighter, more movie-like. There is a smaller group of more complex core









characters. Also, the game is much deeper. There is more detail, more things going on all the time. The script alone is three times longer than that of the first game. We have lots of shocking twists and revelations in store for you."

The snatches of dialogue on page 39 are taken from various cut-scenes in the game. The style should be immediately recognisable to anyone who played the first game. Likewise, the sequel retains the same presentation: static, hand-drawn images, as if ripped from the pages of a contemporary graphic novel.

"What's different this time around, apart from the graphic novels looking better," Lake reveals, "is that we have incorporated a lot more of the story into the gameplay. There are graphic novel screens only in between the levels, and the rest of the story is told in-game through actual gameplay and in-game cut-scenes."

So why keep the graphic novel screens?

# IT'S TOUGH TO DESCRIBE SUCH A SIGHT IN WORDS, BUT AFTER THE SINGLE MOST EFFORTLESSLY COOL AND EMPHATICALLY VISCERAL MINUTE OF GAMEPLAY WE'VE EVER SEEN, ALL WE WANTED WAS MORE.

"We very much feel that the graphic novel is part of the Max Payne experience."

"It's also a different way of telling the story," argues Jarvilehto. "It gives you so much more room for movement, especially for Sam as a writer. It's pretty different to having to only work with ingame cinematics.

"But let's not forget that Max Payne is about intense cinematic action," he adds, tacking back towards calmer waters. "We've been working for quite a long time to make bullet-time even better and getting more mileage out of the combat sequences. And we think it's starting to look pretty nice..."

And with that slice of monumental understatement still defying comprehension, the Finn king of parched humour kickstarts another lengthy 'intense cinematic action' sequence. It's tough to describe such a sight in mere words, but if our jaw was agape at the previous firefight then it was resting comfortably on our lap during this one. After the single most effortlessly cool and emphatically visceral minute of gameplay we've ever seen, all we wanted was more. But we had to wait as they talked a bit longer.

"We're adding a lot of things to give bullet-time a bit more variety," Jarvilehto reveals. "We're adding a lot of context sensitive moves. When you go into bullet-time, Max reloads weapons differently. For instance, he'd normally reload his twin Berettas like this [snapping the new case into each gun in turn], but in bullet-time he'll fling them to the side and pull new ones out of his coat."

It seems every other new game whether it's a shooter or not - is incorporating bullet-time style effects these days. You guys may have done it first, but is there a danger that the function will feel tired in Max Payne 2? Is bullet-time now a cliché?

"I think it's cool, it's flattering,"

reasons Jarvilehto. "We've had two years to take it further – some of which we're showing here, some of which we're still tweaking – and I think people will be pretty happy with what they get to play around with.

"There's a lot of new stuff in The Fall of Max Payne, but I don't feel comfortable talking about it now. We don't want players to know the game inside out before they've had the chance to actually play it. We've enhanced everything. There's a bunch of new guns, and we took away a few that we didn't think worked as well. The enemies are doing a lot of different things. We're integrating NPCs into the combat as well."

He proceeds to demonstrate a scripted - yet playable - event where Max meets up with a bunch of goons, who then join him for the subsequent street battle. While Max leads the way, the NPC goons tag along, ducking behind cars and inside doorways to take cover before emptying their shotguns and SMGs into a host of hapless enemies. They chat amongst themselves, too, often providing cues as to where the enemies are, what they're going to do, and where Max should head next. Overall, it's a sequence on par with the street shoot-out in the incredible Half-Life 2 footage on this month's coverdisc.

It leaves us breathless, but satiates our desire to see more. For now, at least.

While watching the three segments of in-game action – sorry, Petri, 'intense cinematic action' – your highly impressed PCPP scribe casts his mind back to what he remembered as the failings of the first Max Payne. In particular, he recalls the suffocating linearity brought about by locked-door syndrome. On this evidence, the sequel doesn't appear to suffers anywhere near as badly. So we broach the subject with caution.

What are some of the areas in which you felt Max Payne didn't excel, as you'd initially hoped?

"How much time do we have?" laughs Jarvilehto, before getting ever-so-slightly more serious. "We're obviously extremely happy with the way the first game turned out. A lot of people seemed to like it. But to be honest, I think we were practically a garage band working on that title, so there's a huge amount of things we wanted to fix after seeing people's reaction to the game. I think the story is one of the things we could improve on, and now we have the option of pushing further in areas such as environmental interaction. Also, the AI was one of the shortcomings of Max 1, so one of the first things we did on the sequel was to take all of the old AI code away... We don't ever want to touch it again [laughs] .. and rewrote it completely. It's now giving us a lot more options in creating and bringing more variety to the gameplay."

Well, ok, specifically then, Max Payne was too linear for my liking. Have you addressed this?



# THE AI WAS ONE OF THE SHORTCOMINGS OF THE ORGINAL, SO THE FIRST THINGS WE DID ON THE SEQUEL WAS TO TAKE ALL THE AI CODE AND THROW IT AWAY...

"Certainly," he states, with impressive candour. "Max turned out to be too linear. We're obviously still working with a scripted game - we want to have a very tight control over the narrative - but, basic stuff like providing multiple solutions to problems is something we feel pretty strongly about. The game shouldn't feel like a tutorial."

Now on a roll, Jarvilehto continues full steam ahead: "Now that we can sustain NPCs with the gameplay - I mean, with Max 1 the AI wasn't there to do that. Now we can mix those into the scenarios. The player obviously has the option of confronting the NPCs, but also he can let them work on his side, sometimes helping him, sometimes providing other solutions. The environment is also something we're focusing on, so the player can use it to his advantage. breaking stuff to create new paths, that sort of thing. We're not going for GTA3 style fully open-ended gameplay, obviously. We're still remaining true to the first game, but we want to give the player more options. So hopefully it shouldn't feel like one long corridor.

"One of the buzzwords of the office is integration. Something we're striving to get everyone to do is integrate the story into the gameplay. It won't be like 'Here's where you shoot stuff and here's a bit of story'. We want to merge those aspects as well as possible."

"That's the big difference between Max 1 and this game," interrupts Lake, in an effort to make interviewers redundant. "With Max 1, we still were thinking that the story should be separate, those who don't necessarily want to follow the story could just blast their way through. This time around, we have really taken a hard look at how to get the story into the gameplay, so that it's present all the time..."

"It's about doing an immense amount of scripting, constantly, where the player remains in control," Jarvilehto concludes. "It's about integrating the cinematics so they don't stand out and actually fit the context of the situation. Then making sure that the player can't mess those up!"

"It's definitely not easy," finishes Lake, "and finding solutions to those requires a great deal of work. But work is fun."

Work, eh? Does visiting Los Angeles to spend an afternoon chatting with the extremely amiable developers of one of the year's most anticipated games really count as work? It's fun, certainly, especially when you're granted exclusive access to an in-game demonstration of said title. But work? Nope. Never.

Oh, they've stopped talking now. A question, a question, quick!

Ultimately, there's only one thing left to ask: Why a love story? It's a bold step for a game.

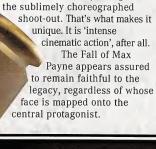
"That's exactly it," says Lake,
"because no one has done it before."
Unsurprisingly, his fellow Finn has



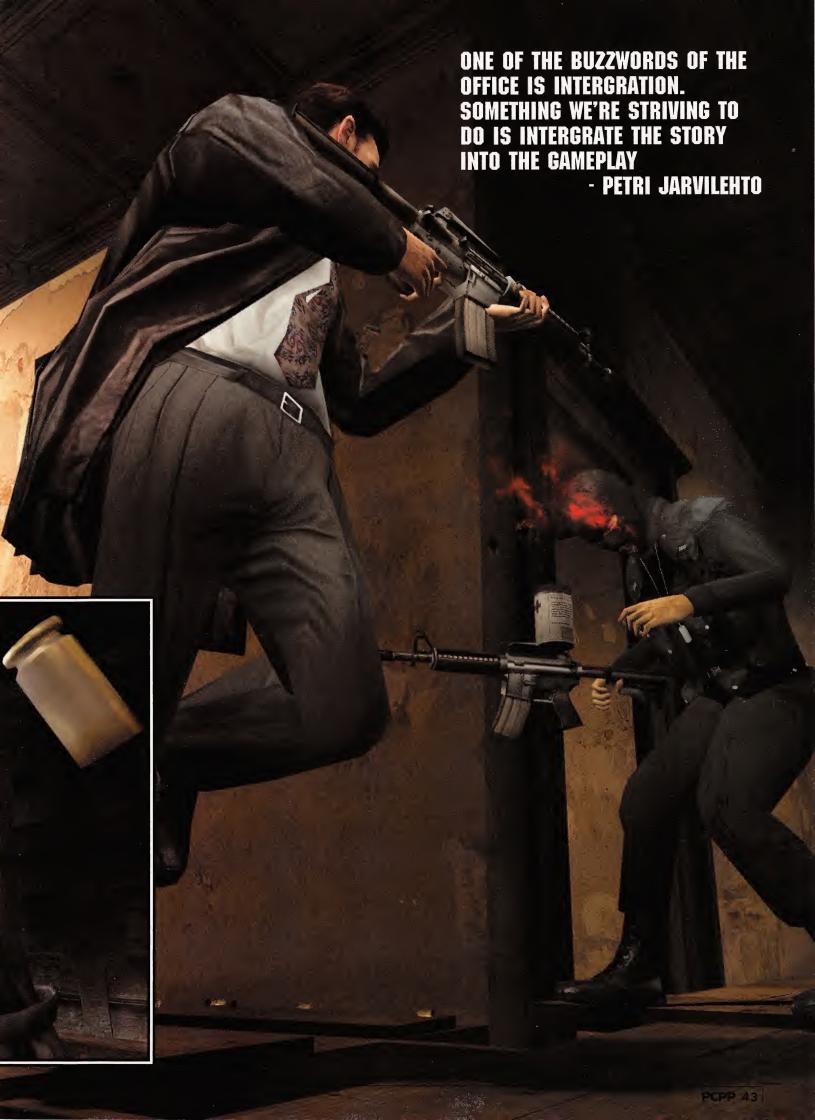
an additional thought: "When we finished Max 1, we had pretty well defined Max Payne, the game – this is the setting, these are the bad guys, etc. For The Fall of Max Payne, we really wanted to take it in a different direction. Now that we have this definition, we can work from that base and do something that we hope will turn out to be pretty unique."

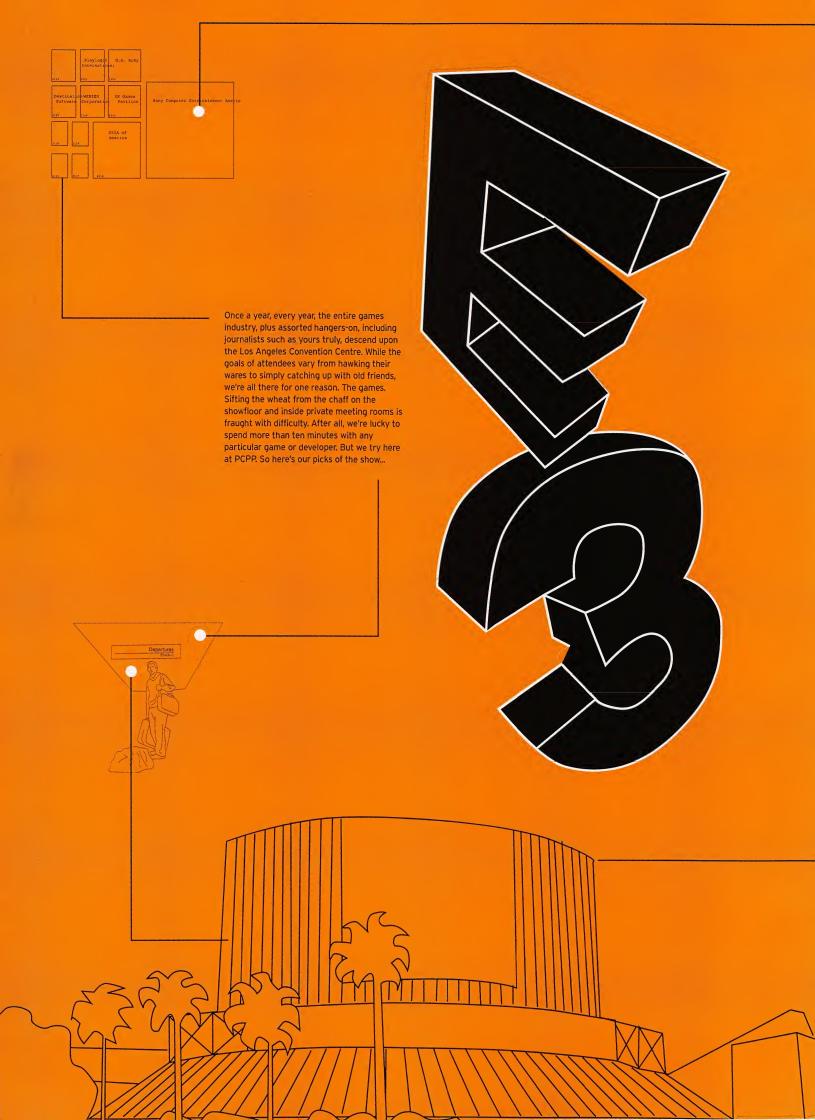
On this evidence, the Max Payne series is still unique. While a multitude of opportunist publishers and developers have affixed bullet-time-esque or Matrix style effects to their recent titles in a cynical effort to

add one more bullet point feature (no pun intended) to the back of the game box, Max Payne is the only game where bullet-time is the USP. Bullet-time is Max Payne and Max Payne is bullet-time; the game has been conceived around the finesse, artistry and grace of







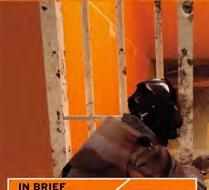


### Half-Life 2

Publisher: Sierra Due: September 2003







#### IN BRIEF

It's been a long time coming, but the wait looks to be worth it. Half-Life 2 is strides ahead of anything else in terms of gameplay and technology. Easily the best game of the show.

We brought you a tantalizing first glimpse of Valve's second coming last month, thanks to a batch of startling screenshots and a frustratingly unrevealing interview. This time, though we may not have any new screens, we can at least tell you (and show you on the coverdisc) how it plays.

Half-Life 2 looks sweet. The coverdisc footage doesn't quite do justice to the minutely detailed and vividly lit environments, but it does amply demonstrate the full power of the Source engine. The most impressive aspect of

the demo we had witnessed is the physics system and its awesome potential for hitherto unseen degrees of environmental interaction. Check the way Gordon rolls a grenade under that huge crate, which topples off the roof and takes out the goons below. Admittedly, the demo was pre-recorded, so it's still unclear as to how much freedom the player will have to devise unique solutions in such situations

More certain is the capacity of the game's AI - of both your enemies and your squad-mates. When Gordon uses a table to barricade a door, the enemy tries the door before popping a few rounds through the nearby window. When Gordon then seeks cover behind the stove, the enemy realises he must get inside and blow his way through the door. Likewise, in the latter part of the demo, Gordon's allies laid down suppression fire, advanced behind cover and fled from the Striders in a most believable fashion.

Empires: Rise of the Modern World

Publisher: Activision

Due:

Stainless Steel's revolutionary new historical RTS will allow players to make their way through the last 1000 years of technological and sociological development as one of a number of real world cultures.



#### Vampire the Masquerade: **Bloodlines**

Publisher: Activision Due: Q3 2004

Based on the hugely successful pen and paper RPG and developed by Troika, the award winning developers of Arcanum and Fallout, Vampire the Masquerade: Bloodlines will give players the ability to live out their darkest fantasies as a vampire from one of seven distinctive clans. Driven by the Half-Life 2 engine, Bloodlines has got to be the best looking RPG coming in the next year.







#### **Battlefield Command**

Publisher: Codemasters Due: Q3 2004

Based during WW2, this game is a realistic RTS using the IL2-Sturmovik engine to provide the impressive 3D graphics. The level of realism in the game extends from damage modelling to vehicle manning - if you lose a tank you also lose an experienced tank crew and have to train another. The graphics are scalable allowing the player to see from the entire map to an individual troop.

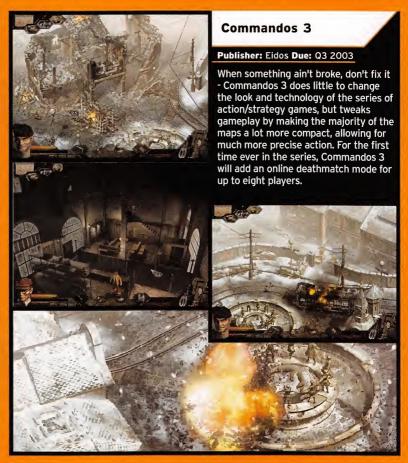


#### Deus Ex: Invisible War

#### Publisher: Eidos Due: Q4 2003

It must now seem as though you've been hearing about Deus Ex: Invisible War for decades. Thankfully, it's just around the corner. We still know very little about the plot aside from it tying in with the first game and the presence of a shadowy conspiracy. With any luck, we should be seeing DX: Invisible War on shelves by Christmas.





## Prince of Persia: Sands of Time

#### Publisher: Ubi Soft Due: Q1 2004

The sweetest surprise of E3 was not discovering John Romero reduced to porting Red Faction to Nokia's N-Gage, but rather the stunning return to form of one of PC gaming's veterans, the Prince of Persia. Original creator Jordan Mechner has taken his pyjama clad hero to Ubi Soft and the result is an effortlessly stylish action-adventure that more than lives up to its heavyweight legacy.

Development duties have been handed to Ubi's Montreal studio, the talented team responsible for Splinter Cell, and the contrast between Sands of Time and the previous embarrassing foray into 3D platforming (Prince of Persia 3D, 1999) couldn't be any more stark. For a series founded on cutting edge animation, it's pleasing to see the Prince leaping, somersaulting, swordfighting and wall-running in gorgeously fluid motion. We'd hazard to say there's never been a better animated character in a videogame.

Even more astounding than seeing the game in action was hearing word from an insider that, as of January this year, the project looked no more than an average platformer and a totally new graphics engine was implemented mere weeks before E3. It already looks polished enough to release, so god knows how good it'll look in six months time.

Rome: Total War

Activision

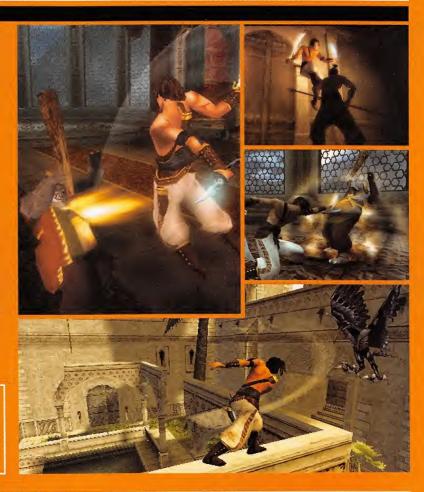
Due:
Q1 2004

Rome: Total War casts players as one of four races vying to control the ancient world. Through massive real time battles and political maneouvering, players compete on massive battlefields.



#### IN BRIEF

The titular Sands of Time have been very kind to our dashing prince. His new game may be coming to all consoles, but he remains a PC gaming hero at heart.









#### Black & White 2

#### Publisher: EA Due: Q2 2004

Whether Black & White 2 will be the gaming revolution we've been promised or will simply turn out to be more of the same remains to be seen, but once again, developer, Peter Molyneux, promises B&W 2 will change the way we look at Al. This time round, the creature will be able to lead armies and perform miracles of its own.







Warcraft 3? Borecraft, more like. It might come as a surprise to hear that the RTS of choice of several PCPP staffers isn't Blizzard's overexposed opus, but rather the critically acclaimed, yet commercially ignored, Battle Realms. With it, Liquid crafted a tightly focused and beautifully balanced title that in many ways remains unsurpassed to this day. It's for this reason alone that we're so excited about Liquid's next outing, a real time strategy take on the Lord of the Rings universe.

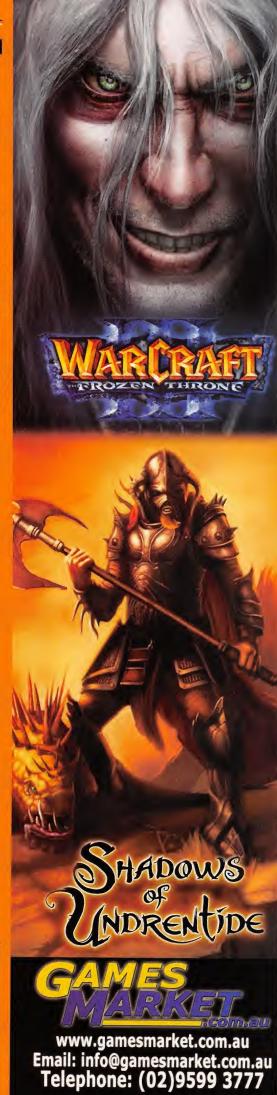
Liquid's main man, Ed Del Castillo, can certainly talk a good game. Although, for a good portion of our chat with him at the show, he seemed more eager to slam Warcraft 3 for its failings than enthuse about his own game. Bold stuff, particularly when you consider which company publishes both titles.

Like Warcraft 3, War of the Ring adopts hero units as the focal point of your army. However, Del Castillo is keen to stress his game's approach means the heroes aren't the be-all and end-all. They'll be more powerful than regular units, but not so much that it unbalances the game. Indeed, all units will grow with experience, thus further leveling the playing field.

The campaign will span the entirety of Tolkien's trilogy and allow the player to participate in two dozen pivotal battles on either the Good or Evil side.

#### IN BRIEF

The world's most popular genre set in the world's most popular fantasy world, and developed by a team of immense talent. How can it possibly fail?





#### Need for Speed: Underground

Publisher: EA Due: Q1 2004

The newest Need for Speed incarnation will see players living life a mile a minute in an illegal world of street racing. Around 20 licensed cars will be available to drive and modify. Aside from the drag racing mode, NFS:U will also feature the tried and true street racing model complete with over 100 interesting scripted events and highly detail cityscapes.





#### Doom 3

Publisher: Activision

**Due:** 2004

Still no word of an actual release date or an officially released playable code, but the trailer certainly does look impressive. Id is currently in the process of optimising drivers.



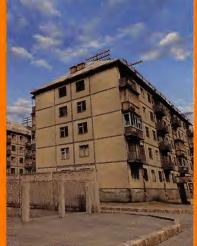
## **STALKER: Oblivion Lost**

#### Publisher: THQ Due: Q1 2004

The second sweetest surprise of the show was tucked away in a private booth at the back of the THQ stand. We'd heard of STALKER before - and even seen a handful of promising screenshots - but, after being ushered inside our little demo room by a couple of unassuming Russian dudes, we weren't at all prepared for how impressive it looks in motion.

The year is 2006 and a second accident at the infamous Chernobyl nuclear facility has just occurred. While the government is keen to cover it up, small bands of mercenaries - the eponymous STALKERs - are infiltrating the site to investigate the scene for underground research teams. Although a first-person shooter at heart, there are also survival horror, role-playing and squad-based elements as you compete against or team up with NPC STALKERs to recover data and artifacts for subsequent sale on the black market.

Unlike the stylized Half-Life 2 environs, Oblivion Lost's similarly uberpowerful renderer is striving for photorealism - and the result is as close as we've yet witnessed in a game. These are massive areas, too. The smallest outdoor map we were shown is roughly 3km x 5km in size, while retaining the same high detail present in the indoor locations











strategy game sees players controlling a movie studio from 1900 to the present day, covering all of the landmark technological advances including, of course, colour

Lionhead's new

The Movies

Activision

2004



and sound.

#### **Full Throttle:** Hell on Wheels

Publisher: LucasArts Due: 2004

Eight years down the track, Ben, leader of the Polecats, is back in this eagerly anticipated action/adventure sequel. This time around, the Full Throttle franchise will better combine the elements of action and adventure with more puzzles, as well as a much improved fighting system complete with around 40 weapons and moves. Now presented in full 3D, Hell on Wheels could be the first step in bringing in a glorious new era of adventure gaming.

## -3

## **Thief**

Publisher: Eidos Due: 2004





This year's show saw the first public unveiling of the next in the Thief series, after a hush-hush, print-anything-and-we'll-kill-you, behind-closed-doors screening at last year's event. As one of the lucky few to have seen the game both times, PCPP is happy to report that the project is progressing very nicely indeed.

Although playable on the show floor this time, the demo contained little more than a small castle area populated by only a handful of guards. The aim was to illustrate the effective next-gen technology, replete with some breathtaking real time lighting and shadowing effects - most apparent when watching a guard carrying a torch along one of the castle's gloomy corridors - and show off some of the new gameplay features. Of the latter, Garrett's lockpicking technique has transformed into a very cool mini-game, while his ability to climb walls should add new avenues for exploration.

The real time shadows have raised some crucial gameplay questions. In fact, Ion Storm is still debating if guards should notice and react to Garrett's own shadow. The issue up for debate is not whether it can technically be done, but whether it turns out to be more fun or frustrating.





Ground Control 2: Operation Exodus

**Publisher:** Vivendi Universal

**Due:** Q4 2003

Featuring a deep strategic singleplayer campaign and a unique drop-in style multiplayer that means anyone can enter a battle at any time, Ground Control 2 looks set to become a landmark RTS title.





#### Homeworld 2

**Publisher:** Vivendi Universal

**Due:** Q3 2003

Homeworld 2 will place a stronger emphasis on combat than other games in the series and will also feature an improved graphics engine. The control system will be streamlined to make the game more accessible.

#### Secret Weapons Over Normandy

Publisher: LucasArts Due: Q4 2003

The sequel to Secret Weapons of the Luftwaffe sees players taking part in various air battles during WW2 between the years from 1940 to 1944. With more of an emphasis on easily accessible combat than realistic simulation, Secret Weapons Over Normandy will feature a third person perspective and a bullet slow motion effect allowing for easier targeting and manoeuvering.





The Con-

Call of Duty

Publisher: Activision

Due: Q4 2003

This new World War 2 based FPS sees players cast as one of three allied troops, American, British or Russian, complete with events and weapons that are relative to the character played.



#### Trinity

Publisher: Activision

**Due:** Q1 2004

Boasting a bullettime effect called "flash time", Trinity is a dark futuristic FPS. The player is cast as Nightstalker, an enhanced vigilante capable of taking on small armies by himself.



#### **Dragon Empires**

Publisher: Codemasters

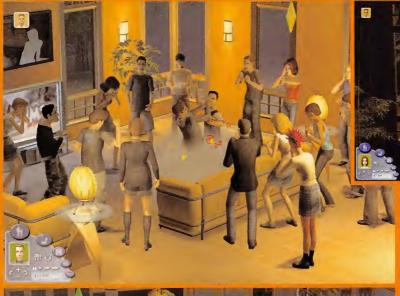
Q2 2004

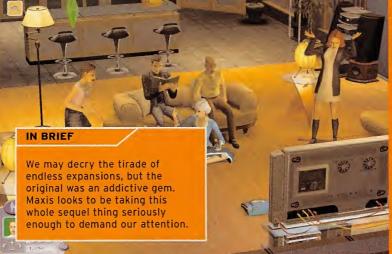
Not much is known about this upcoming game, what we do know is the fantasy world will be divided into five realms, each ruled by a dragon and those players will have a choice between three different races.



## The Sims 2.0

Publisher: Electronic Arts Due: Q1 2004





Christ, not another expansion pack for... But wait! What? It's not an addon? Right. At long last, EA has decided enough's enough (except for The Sims: Superstar, that is) and instructed Maxis to churn out – nay, create – a genuine Sims sequel, aptly named The Sims 2.0.

Given that the interminable series of add-ons have actually expanded and enhanced the Sims formula to some considerable extent, it's difficult to envisage what new features would warrant a sequel. Well, how about a completely overhauled graphics engine? Out go the old tiles and sprites and in comes spiffy real-time 3D. And, admittedly, the Sims and their homes look all the better for it, particularly in terms of gestures and other body animations. The increased range of expressions and movements certainly makes for a more believable simulation.

Your Sims now age and change physically depending on the activities they undertake during their lives. Coupled with the implementation of a genetic system that sees a host of traits passed down through the generations, The Sims 2.0 has the potential for much deeper, longer lived and experimental experience than the original title.

#### **Armed and Dangerous**

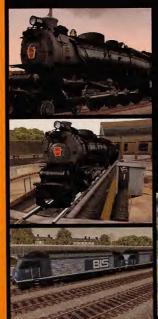
Publisher: LucasArts Due: Q1 2004

If we can expect anything fromthis game it will be humour - developers Planet Moon, best known for Giants: Citizen Kabuto are back with what promises to be an action packed strategy game where players take the role of a group of unlikely criminals trying to pull off an impossible heist during a war. Huge weapons, silly encounters and hilarious dialogue are but a few of the features promised.



#### Microsoft Train Simulator 2

Publisher: Microsoft Due: Q4 2003



More trains, more tracks and a more accessible control system are the most important features promised in this sequel to Microsoft Train Simulator, which Microsoft hopes will attract not just train enthusiasts but new players as well. On an interesting side note, apparently a number of train manufacturers have asked that it not be possible to derail their trains as they don't want any bad press.





### Halo

#### Publisher: Microsoft Due: September 2003

You may have heard of this one already, we know. Furthermore, you've played and finished it too. Probably still playing, in fact. But, believe it or not, E3 presented us with our first opportunity to experience Halo on PC, rather than some icky green console.

If passion is measured by the amount of saliva PCPP's scribe had sprayed in his face during the interview, then Randy Pitchford, whose Gearbox studio is handling the porting duties, invests more into his craft than any other developer. He frothed about not wanting to tamper too much with the perfection of Halo's single-player campaign. And he frothed about the remarkable additions they've made to the multiplayer setup. And when not frothing about how unbelievably good Halo was in the first place, he frothed some more.

You can read more about how Gearbox tackled transferring the best console game of all time onto PC next issue, so for now we'll just give away a couple of hints. All the vehicles are operable in multiplayer – yes, including the Banshee. They ditched the auto-aim function to compensate for the superior marksmanship provided by mouse control. Coop play through the campaign is a top tier priority, but still requires a lot of work.

#### IN BRIEF

This is a perfect port of an already untouchable game, enhanced to take advantage of the PC's heightened graphical, control and network capabilities. It'll be worth the wait.

#### Microsoft Flight Simulator 2004

Publisher: Microsoft Due: Q3 2003

Scheduled for release on the 100th anniversary of powered flight, this game will not only feature 16 modern aircraft, but nine historical aircraft as well, including the the first powered aircraft that took to the sky in 1903. Aside from the amount of planes available to fly, the scope of the game is massive - Microsoft have recreated around 23,000 real world airports to land in.









City of Heroes

Publisher: NC Soft Due: TBA

The first superhero MMORPG in development sees players battling against the forces of evil in Paragon City. Developers, NC Soft, promise there will literally be trillions of power and costume combination guaranteeing a diverse game world. Unique NPC interaction allowing for allies and nemesis also makes City of Heroes stand out from the MMORPG crowd.





## 3

#### The Matrix Online

#### Publisher: Ubi Soft Due: 2004

Set some time after Revolutions, the third film in the Matrix trilogy, players will have to choose whether they want to fight for the freedom of humanity as a Zionist or side with the machines to keep mankind imprisoned. The film-inspired MMORPG will not feature zones, instead The City will dynamically load as the player moves.





Knights of the Old Republic

Publisher: LucasArts

**Due:** Q4 2003

Set 4000 years before the events of Episode 1, Bioware's new RPG lets the player create their own character and develop them into a powerful Jedi that follows either the light or dark side.





XIII

Publisher: Ubi Soft Due: Q4 2003

Based on a popular Belgian series of graphic novels, XIII (13) casts players as a mysterious soldier stricken with a rather bad case of amnesia. Framed for the murder of the President, XIII must escape his captors and discover the truth in this cell shaded FPS. Comic-like visual effects and sound bubbles add to the overall feel of the title.

## **Mythica**

#### Publisher: Microsoft Due: 2004

More than any previous year, this E3 was awash with massively multiplayer titles, the vast majority of them RPGs of varying description. Perhaps the most promising – and certainly one of the most curious – was Microsoft's Mythica. Promising because it looks superb and distinguishes itself from the crowd by emphasising cooperative play. Curious because Microsoft has already invested heavily in the same genre with Asheron's Call and its recent sequel.

Call and its recent sequel.

Exploiting the rich veins of Norse mythology for its setting, Mythica puts you in the unlikely role of an immortal hero seeking to gain godhood status. As such you'll have to answer (or endure) cries for help from mere mortal beings, with your responses depending on what type of god you wish to become. Think the moral choices in Black & White to give you an idea of the range of actions.

The development team is also excited by their Private Realm technology where a group of heroes can team up in a small environment to tackle specific quests. Mythica will ship with dozens of these areas, and more will be added during the game's lifetime. This is core to the goal of forging a world with a strong sense of narrative - it's not just about hacking monsters and stealing booty.



Age of Mythology: The Titans

Publisher: Microsoft

Due: Q4 2003

This expansion pack for Age of Mythology adds a new playable race, the fictional Atlanteans, as well as a veritable slew of new features and add-ons to be used by all of the races.



#### IN BRIEF

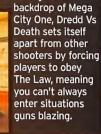
It's already looking superior to Asheron's Call, while the emphasis on questing is certainly appealing. We think World of Warcraft has a serious challenger.



#### Judge Dredd: Dredd Vs Death

Publisher: Vivendi Due: 2004

Based on the hugely successful 2000AD comic, Dredd Vs Death pits the hardened judge against his evil nemesis, Judge Death and the dark judges. Set against the huge and dark





Publisher: Vivendi Universal Due: Q4 2003







While Valve was wowing us elsewhere with the debut of its stunning Source technology, Ritual is still slaving away with the Half-Life engine as the release of Condition Zero crawls ever nearer. Of course, it's not the original Half-Life engine, per se. Ritual estimates a good 25% of the engine has been rewritten, and that's on top of all the enhancements seen in Blue Shift et al. Still, it's clearly far from bleeding edge technology, though all along the intention has been to keep the base system requirements quite low.

Nevertheless, it somehow emerges as a hugely impressive game, as Ritual appears to have shoehorned a compelling singleplayer experience into an inherently multiplayer concept. There's a genuine warzone atmosphere to the locations - one level we witnessed boasted some clever

scripts that saw entire buildings collapse into clouds of dust and piles of rubble. The squad AI does a convincing enough job of (almost) fooling you into thinking they might just be controlled by real people surely the area where the game is going to live or die.

One aspect we found odd is that there's no overall story threading through the solo missions. Instead you jump from one hotspot to the next, fighting the war on terror and racking up those frequent flyer points to boot.

#### Lords of Everquest

Publisher: Sony Online

**Due:** Q4 2003

Sony Online gives the EverQuest world a facelift with this largely singleplayer RTS based in the popular MMORPG universe. Hopefully, the final version won't look so similar to Warcraft 3.



#### Hidden and Dangerous 2

Publisher: Take 2 Interactive Due: Q4 2003

Running on the LS3D engine (Mafia), Hidden and Dangerous 2 combines First Person Shooter action and strategy with over 23 singleplayer levels and an online deathmatch mode for up to 32 players. The Mafia car physics are also being used, so players should expect to experience some excellent drivable vehicles.







#### Space Colony

Publisher: Take 2 Interactive Due: Q4 2003

Something like a combination of Stronghold and The Sims, this game asks players to build and maintain a viable space colony. The twist comes with 20 characters, each with their own personalities and needs - the player must cater to these needs and make sure there are no personality conflicts that will jeopardise the colony.

Lords of the Realm 3

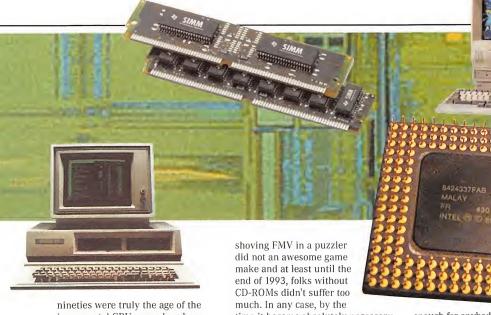
**Publisher:** Vivendi Universal

**Due:** Q4 2003

Featuring a new, real time 3D engine, Lords of the Realm 3 will combine strategic city building and resource management, much like Caesar or Pharaoh, with epic real time battles.







incremental CPU upgrade, where big dollars meant not a hell of a lot more performance.

The games that drove these upgrades have been mentioned many times in the pages of this magazine, because they were pivotal titles. From 286 to 386 there was Wing Commander, that great space opera of yore. From 386 to 486 there was Doom, where a 486DX 33MHz machine enabled the adolescent's dream of running id's opus in 'high detail' mode - 320x240.

But, along with the 486, came another important new development in PC gaming, a storage device that promised to revolutionise the content of our games. It was a device that dragged the word 'multimedia' out of fine arts and into our PCs.

#### CD-ROM

It seems hard to imagine today that once it was impossible to run some games because a system's CD-ROM was too slow. The first game that ever gave me this sort of gip was Privateer 2, which had lovely interlaced FMV that used to lock up three seconds into every scene, thanks to my single-speed CD-ROM.

There was a time when we had to choose between CD-ROM or a 486DX, and those who opted for an FPU found themselves initially left behind in the so-called multimedia revolution, missing out on the likes of 7th Guest and Myst.

Within a few months though, it became apparent that time it became absolutely necessary

to have a CD-ROM, the 2x drives were out and all us single-speed schmucks were left feeling more than a little stupid.

But how much would a CD-ROM upgrade cost you? If you bought a complete upgrade pack from someone like Creative, a 2x drive would cost a staggering \$299, which was a lot of money back then.

And this was in the days of CD-ROM drivers, where imperfect juggling of config.sys and autoexec.bat files would result in your PC completely ignoring your expensive new investment. And it would be necessary to run such arcane sys files and TSRs as himem.sys and emm386.exe to clear enough low memory to make most games run.

Remember that 640k? Remember how it sat there, permanently out of reach, clogged with DOS mouse drivers and Soundblaster controllers? Himem allowed the astute user to shove a lot of this stuff in high memory, but with only 4MB on most machines, this too soon became clogged and the dreaded Origin message "Insufficient expanded memory detected, limited music will play" was seen all too often.

Which brings us neatly to the next great upgrade cycle.

#### RAM

Ah, sweet RAM, where would we be without it? It seems appropriate to mention, yet again, that Bill Gates himself once crowed that 640k of main memory should be more than

enough for anybody and, indeed, for a long time PCs only recognised 640k of low memory and called the rest of it high memory, needlessly complicating the process of playing games.

The first true gaming PCs - 386s initially came with 2MB of RAM. At fabulous expense, it was also possible to get a 4MB machine. Later on, of course, people went crazy, with 8MB and 16MB powerhouses flinging sprites and even the occasional polygon all over the place.

RAM is probably one of the most contentious components of the PC, since there are so many varieties and it's so poorly understood. The most important thing to remember with RAM is that unlike almost every other PC component, it can actually get more expensive as the day goes on.

One of the biggest RAM crises occurred in 1999 after a series of earthquakes in Taiwan. The price doubled overnight and then doubled again at about 11 o'clock the next day. A slew of 256MB machine ads had to be pulled or sheepishly dishonoured as manufacturers ran out of the cheap stuff.

Since then, RAM has generated an industry like a smaller, nastier version of the big videocard wars. First, EDO RAM was ousted by SDRAM. Then RAMBUS attempted to ride its way to victory on the back of the Pentium 4. Then came DDR, which, as we know, has emerged as the current victor.

It's RAM, those slim attractive modules, that have caused more motherboards to be thrown out since the day someone in

#### SO, WHEN DO I BUY?

This is, of course, the single stickiest question encountered in this crazy business called PC gaming. No matter how hard you shop, how many deals you compare, know this: six weeks after you lovingly assemble a PC balanced on the razor's edge of budget and performance, the exact same configuration will be available for two hundred bucks less.

You can keep a steely watch on such things as RAM prices, but don't wait too long. Unlike the rest of your machine (which will only get cheaper), the RAM can fluctuate up and down almost overnight. In 1999, for instance, the company I was working for was updating its RAM prices twice daily. Don't wait even one more day for a better price or you could get stung.

As a result, the best time to buy can only be when you are ready. When you can get something that excites you, a configuration that you feel rocks and doesn't blow your budget, then that's the right time to buy.

some development lab in darkest Taiwan decided that AT was out and ATX was in (see boxout on page 57).

Nowadays, with DDR reigning supreme, companies are taking to dressing up RAM in colourful jackets to attract your attention. Take Kingston's HyperX as a perfect example. Why is it marketed as the fastest RAM in the gosh darn world? Because it has the metallic blue casing to prove it!

RAM is also contentious because it's never possible to know exactly how much of the stuff you should have. Conventional wisdom said that under Windows 98 or earlier, any more than 256MB was a waste. In these enlightened days of Windows XP Professional of course, 1GB or more will be gladly accepted, but 512MB should prove a sensible minimum.

#### **Motherboards**

Did someone mention motherboards? For the three PCPP readers who have been living at the bottom of the Kermadec Trench, the motherboard is the lynchpin of the

PC, a gangling mess of microchips and



#### **UPGRADE HELL**



thousands of kilometres of circuit tracks into which all your bits plug. You'd be hoping that if one part of a PC didn't need upgrading, this would be it. Not so.

There was a time when the mobo was an unconsidered trifle, in the same way that the sun is an unconsidered trifle - it's just always there. Today, of course, people change mobos as frequently as they change videocards. Often BECAUSE of their videocard.

The motherboard determines the entire makeup of your system. If you want to upgrade your memory, your CPU, your videocard or your hard drives, and especially if you haven't done so for a while, you're going to need a new motherboard.

Manufacturers are very helpful these days. Rather than the arcane zones of mystery they once were, which required the setting of jumpers and other Dick Smith nerd type things, mobos are now brightly coloured fun centres with gaudy stickers pointing to important parts, every slot colour coded to help all but the colour blind.

There is a vicious fight, even now, underway to make the most attractive, the most stunningly beautiful motherboard to entice users who will look at it once and then lock it away inside a tower for the next eighteen months. The current winner is Soltek's Violet Eyes P4 board, which is an iridescent purple. All the proud owner needs is to track down a videocard that won't clash with it.



#### **Videocards**

Which brings us rather neatly to the main offender. The videocard. This is the single most upgraded part of the PC, over which the most fights are had and has the capability to make the end user feel more ripped off than any other component.

There is an entire videocard industry built around gamers. Without gamers, nV1DIA and ATi would have to rely on high end 3D professionals to make their billions, which ain't gonna happen. Both companies make good solid revenue from their portable chipsets, but gamers drive technological development and keep the industry growing.

Once upon a time, the display adaptor got about as much press as the motherboard - it wasn't cool, it just was. If you had a 2MB card that was VESA compatible, the gaming world was pretty much your oyster.

Eventually though, someone invented this great thing called 3D acceleration, and it became necessary to purchase a separate 3D accelerator

#### BREAKING THE CYCLE

Will the cycle ever end? The ultimate answer is probably no, but as the consoles take a cue from PC architecture and PCs become more console-like, the frequency of upgrades may be reduced. Microsoft has learnt much from its foray into console territory, and one of the most important lessons is the ease of starting an Xbox game simply insert the disc and away you go. No installs, no registry updates, no messy icons and program groups. There is talk of this kind of functionality being built in to future versions of Windows and DirectX. While hardcore users will remain at the mercy of a cackling cabal of Taiwanese and South Korean companies, the rest of us may benefit from the "consumer electronicserisation" of the PC. As the PC becomes even more standardised and plug and play means what it says, your machine may last longer. Anyway, how many more graphical

improvements can there be left to include in our already overstuffed APIs? The answer, most probably, is a depressingly large number. card that used a pass-through cable to connect to the main graphics card. After that fiddly business reached its pinnacle with the Voodoo2 (see this month's Flashback) an even cleverer person thought of combining 2D and 3D functionality into a single card, and someone else figured it should get its own slot on the motherboard and some dedicated bandwidth, so AGP was born.

The development of display adaptors since then (then being 1999 - a pivotal year, indeed) has been so fast it's been at times difficult to follow. All I know for sure is the card I buy today for \$600 is roughly six times more powerful than the card I bought at Christmas 2001 for \$1000. And that trend looks likely to continue.

#### But why?

So, we've rather long-windedly established that the PC is a fluid beast and once you buy one you'll be keeping your friendly neighbourhood systems integrator cruising about in sports cars and dining on caviar for many years to come. But why is it so?

The answer, you already know: games. It's a vicious cycle, a kind of digital ouroboros, a snake eating its tail into eternity. Games demand better machines, and likewise better machines demand better games.

All it takes is one smartarse developer like id to release a Quake and suddenly everyone becomes dissatisfied with perfectly good pseudo-3D engines and wants true 3D. Hardware manufacturers develop a new kind of videocard optimised for new games, and then someone else (probably id again, though) releases a game with

massive outdoor environments, or lens flares, or curved surfaces and every two-bit developer jumps on the new bandwagon, while hardware companies cackle with glee.

Every now and then though, it flips around. Microsoft releases a new DirectX version with support for some 3D flashery that no one ever thought to ask for, like individual pollen modelling in wheatfields, and developers are encouraged or, in extreme cases, coerced to include it in the next blockbuster title.

The games hardly change. The graphics keep getting flashier. The demand on your system keeps getting higher. No matter how much cash you drop on a new machine, it will only stay cutting edge for eighteen months at best. And that really is at best. Most machines lose the edge after less than six.

Consider the Radeon 9800 Pro, champion of this month's PowerTest. It was only November when its predecessor the 9700 Pro was released, and way back then it changed the world. Now the 9800 is here, only seven months later. To anyone who rushed out and bought a 9700 Pro when they were still \$800, my condolences.

#### The good news

Of course, it's not all bad. We have to suffer the upgrading nightmare, we have to endure never having a perfect machine and we have to suffer the shame of our friends and neighbours lording it over us because they waited six weeks longer than we did and so got a next generation







#### A videocard PowerTest by **Anthony Fordham** and **Jack Kulyk**

The videocard wars are raging, and PC gamers are right in the thick of it. We hunker down in the trenches, nervously peeking over the top into the no-man's land of tiny second floor retailers with window displays stuffed full of dozens of brightly coloured boxes with badly rendered 3D dinosaurs, spacemen and Aztec warriors printed on them.

Choosing a videocard used to be such a carefree and simple matter. The rich among us bought the most expensive card, the middle class the middle priced, and the paupers cleaned up in the budget area. There were a few easily recognised brands and cores, and life was good.

Nowadays of course, it's all gone mad. There are now so many cards on the market; we couldn't possibly represent them all here without filling the entire mag with anything but PowerTest. Our last serious videocard round up way way back in PCPP#58 had 15 cards and represented most of the major manufacturers around.

This time, though, we've had to be a little pickier. So we've tossed

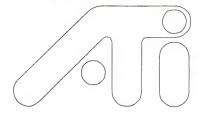
in cards from a number of leading brands and a couple of exotics for good measure. And with so many different cores on the market, we've had to be selective there, too. The PowerTest usually represents the bulk of the market, but this time we've had to restrict ourselves to new cores only. We've got a fair spread from nVIDIA and ATI, from the stupidly expensive to the refreshingly cheap.

If you're currently running a GeForce2 or (shudder) something even older, any one of these cards will revolutionise your gaming experience. But of the budget cards, beware. The money you save today will inevitably have to be spent again in the future. The cheap cards will run Quake 3 like a dream, but Unreal Tournament 2003 like a good dream that suddenly turns into a bad dream, you know, like when all the pretty girl's teeth fall out. Or maybe that's just me...

Anyway, before we get started, here's a quick refresher for each of the chipsets featured in this test. All the cards have 128MB of memory and are AGP 8x enabled.



ATi



You can stop wondering right now: this PowerTest is pretty much a clean sweep for ATi. In the ultra high end and the ultra budget end the ATi equivalent of an nVIDIA core now wins out easily. And fortunately for you the prices are usually better, too.

#### **RADEON 9800 PRO**

This is ATi's flagship, the stupidly, blisteringly fast core revision of the almost as stupidly blisteringly fast 9700 Pro. The R350 represents a cunningly and beautifully tweaked version of the

#### CONNECTIVITY

All the cards tested have a standard VGA output, as well as DVI, except the ASUS FX5600, which has double DVI outputs and converter dongles for the fraction of the population that doesn't own expensive LCD screens. Cuh! All the cards also have TV out functionality, but this varies from model to model. Examine the text for each card for more details.

9700 Pro, with a core clocked 16% faster than its predecessor. It's fully DirectX9 enabled and, unlike the GeForceFX 5800, doesn't need a massive chunk of copper and a small aircraft engine glued to the top of the GPU. If you happen to have the money, then this is the card of choice for you, although its improvements over the 9700 are not really massive enough to warrant an expensive upgrade from the older card.

#### **RADEON 9700 PRO**

This is the little card that could. When it was released in November 2002, people sat up and noticed. They noticed things like four vertex shaders, eight pixel pipelines, AGP 8x support, a 256-bit memory interface and 2.1GB/s of bandwidth. The R300 core runs at 325MHz and the memory at 310MHz (620MHz DDR), and the maximum memory bandwidth is 19.8GB/s. It's a serious card for serious gamers, a fully DirectX9 enabled card and thanks to the 9800 Pro, it's now getting cheap. Buy it.

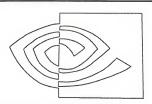
#### **RADEON 9600 PRO**

This is one very interesting card. Its predecessor, the 9500 Pro was a cut down version of the 9700 Pro, using a core called the RV300. The 256-bit memory interface was slashed in twain and four of the pixel pipelines were removed. The RV350 shows evidence of the same kind of thinking, except cleverer. It's the way of the future, built on a 0.13 micron process, instead of 0.15, resulting in a 400MHz core clock. and while the memory bus is still 128-bit, the core revisions are sophisticated enough to cause less of a hit than you'd expect. Unfortunately, its still a bit pricey compared to its only marginally less powerful competition, the FX5600.

#### RADEON 9200

Despite the 9 in the name, this isn't a DirectX9 capable card. The RV280 core is based on the old 8500, with four pixel pipelines with only one texturing unit per pipe. It also uses the older SuperSampling antialiasing technique. However, unlike the 9000, the 9200 has AGP 8x and higher core and memory clock speeds. Interestingly enough it's passively cooled like the FX5200 but performs considerably better.

#### nVIDIA



nVIDIA used to be the king. It snatched the crown from 3Dfx and trampled its rival into the dirt then bought all its office furniture, built a big bonfire and danced around it naked painted with Cabbalistic symbols. Maybe. In any case, with the release of the FX series of GeForce

#### TESTBED

All cards were tested on an AthlonXP 2700+ running off an ASUS A7N8X nForce2 motherboard with 512MB of DDR400 RAM, generously provided by Emagen (www.emagen.com.au).

cards this year, things have started to look shaky. Basically, given ATi's new range of cards, there's almost no reason to buy GeForceFX, unless you're looking at an FX5600. Let's take a look.

#### FX5900

Unfortunately, no production FX5900 cards were available for the PowerTest. See our review of the new card that might help nVIDIA claw back some respect in next issue.

#### FX5800

Yes, well, what can we say? Expensive. Massive cooler. Lacklustre performance. While the FX5800 performs well in the UT2K3 benchmarks, it bombs out in 3DMark03. As a result, nVIDIA says we should ignore those benchmarks. Sure. Still, it has a 500MHz core and 128MB of 500MHz memory (1GHz DDR), but only a 128-bit memory bus, instead of the 9700 and 9800's 256-bit bus. The real 'selling point' for this new core is 128-bit colour, supporting 16 million level per base colour, instead of only 256 as is with 32-bit. But, still. Ugh.

#### **FX5600**

This mid-range DirectX9 chip will replace the GeForce4 Ti4200, adding all the features found in the FX5800, but running a slower core clock (300MHz) and using only DDR memory instead of DDR2. There are also only four pixel pipes, instead of eight. Unlike its little brother the FX5200, the FX5600 does include IntelliSample support for antialiasing, although its slower architecture, of course, means a big performance hit.

#### FX5200

Yes, it's true, nVIDIA did manage to release a broad spectrum DirectX9 range before ATi - almost a whole day. In any case, the FX5200 is the equivalent of the Radeon 9200, a passively cooled cheap-as-chips entry level card that takes the new technology and mercilessly guts it in favour of cost. Like the FX5600, it has four pixel pipelines without IntelliSample support. But, it is cheap.

#### **HOW WE TESTED**

We used 3DMarkO3 set at 1024x768x32 with all other settings on default. We also used [H]ard|OCP's Unreal Tournament 2003 benchmarking utility and took our results from the average framerate generated by a series of flythoughs. While we did test antialiasing performance, we opted not to incorporate the results in this PowerTest, as they were pretty obvious - the top end cards have decent FSAA, the cheaper cards take a massive performance hit. So, there.

#### Abit

#### Siluro FX5800

#### ■ Price: \$740 ■ Distributor: Altech ■ URL: www.altech.com.au



Power: 3 Value: 2 Extras: 2

**1** ur review of this card last month was none too flattering. Mostly because of its cost, its ridiculous cooling system and its performance.

If we take nVIDIA's advice and ignore the 3DMark03 results, which are abysmal, we find that the Siluro FX5800 actually performs quite well in UT2K3, beating everything except the Hercules 9800 Pro by the slimmest of margins.

So, maybe we can't write it off on performance alone. But the cooling system for this card is so massive, it wipes out a whole extra PCI slot. However, it does light up green and yellow, which is nice for some folks.

The retail kit we tested was the Deluxe version, which comes in a

double-decker wooden box, like a really expensive box of chocolates. Once you dig through all the rice paper and trendy wooden shavings you discover a secret drawer that contains the software bundle. And yet, despite all the frippery there are no free games! None! This is a big disappointment, although the documentation for the card is very detailed, which should please all the overclockers out there.

Apart from this, the Siluro FX5800 is clocked at 500MHz core, 500Mhz memory (1GHz DDR) and utilises Abit's OTES (Outside Thermal Exhaust System) which, at least for this humble reviewer, is not a plus.

#### Hercules

#### 3D Prophet 9800 Pro

■ Price: \$999 ■ Distributor: Hercules ■ URL: au.hercules.com



Power: 5 Value: 8 Extras: 8

hree aspects of this card immediately jump out and smack you right in the face. Performance, Raven Shield and then the price, which sucks.

The 3D Prophet 9800 Pro creamed the tests, at least if you think of cream as a very thin, slightly superior substance. Two FPS in the UT2K3 tests may not sound like much, but we have to draw a distinction somewhere.

The tiny extra speed is possibly due to Hercules building its own boards for ATi's chips and perhaps its revisions had eked out the slim lead. Perhaps the funky copper cooler and copper heatsinks on the RAM and the voltage stabilisers have something of an effect. Then again, perhaps not.

Along with Hercules mainstay
Power DVD, the jolly French
hardware giant has tossed in a copy
of Raven Shield, the high tech
military squad-based shooter from
partner company Ubi Soft. See,
Hercules scratches Ubi's back, and we
get free stuff... except, is it really free?
This card is \$200 more expensive
than other 9800 Pros in the test and
all you get is slightly faster
performance and a free \$100 game.

Were it not for the price, this card would be a clear winner for value too, but \$200 is just too much.

**PowerColor** 

#### Radeon 9800 Pro

■ Price: \$800 ■ Distributor: Altech ■ URL: www.altech.com.au



Power: Value: Extras:

owerColor claims on the inside of the box to be the Best Game Card in the world. If you take 'best' to mean 'performing on par with all other 9800 Pro cards and having a decent software bundle', then, indeed, this is the Best Game Card in the world.

PowerColor makes very few revisions to the reference ATi graphics board, to the extent the company even uses the same heat sink, right down to the ATi sticker. Unoriginal, you might think, but you do get a card that does what ATi says it should on its website.

The PowerColor box proudly proclaims the inclusion of SEVEN games, but five of these are only

demos. However, the two full version games - Comanche 4 and Summoner - are decent titles even if their inclusion is a little puzzling as they are hardly the graphics that are intensive by the 9800's standards.

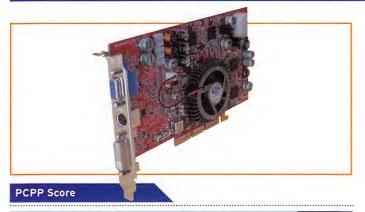
There are also the requisite power cables, composite and RCA cables for TV out functionality and WinDVD software DVD decoder for the naughty movies.

The performance of the PowerColor 9800 Pro put it slightly behind the Hercules 9800 Pro in 3DMark03 and behind the Hercules and the Abit FX5800 in UT2K3, although, once again, by only a handful of FPS.

#### Sapphire

#### **Atlantis 9800 Pro**

#### ■ Price: \$799 ■ Distributor: Achieva ■ URL: www.achieva.com.au



Power: 5 Value: 3 **Extras:** 

e'd heard good things about Sapphire and the cards featured in this PowerTest are the first we've tried out here in the PCPP tech bunker. Unfortunately though, the Sapphire Atlantis 9800 Pro brought up the rear in the 9800 Pro group, although, once again, it was by only a slim percentage. It's 3DMark03 score was 30 points lower than the PowerColor card and its UT2K3 FPS was 2FPS slower. Boo hoo.

You can probably safely ignore these performance issues, as you won't even notice them while playing actual games, and the Atlantis 9800 Pro makes up for its shortcomings with a very decent software bundle.

Sapphire includes full versions

of Return to Castle Wolfenstein (which you need to take advantage of the free Enemy Territory add on) and Soldier of Fortune 2. Sure, they're both older games, so if you already have them then choose another card. But they're meatier than Comanche 4 and Summoner, take note PowerColor.

Like the other bundles, the Atlantis includes a power cable, RCA and composite cables for TV out and a DVI-VGA converter if you want to run two monitors. And let's face it, who doesn't?

One thing to note about the Sapphire cards, is that they all have very slightly different coolers. Why is it so?

#### ATi

#### Radeon 9700 Pro

#### ■ Price: \$650 ■ Distributor: ATi ■ URL: www.ati.com



Power: 4 Value: 5 Extras:

ou will have noticed that all the 9800 Pro cards only got a 3 for value. This is mainly because while their performance over the 9700 Pro is appreciable; it's not significant enough to justify a \$150 - \$170 price hike. The 9700 Pro is still a top performer and is presented at a far more realistic price.

That said, this is still an expensive card and ATi's offering doesn't have many bells or whistles. Inside the pack you get drivers, a power cable, cables for TV out, a slim installation manual and that's it.

Still, you have to give ATi some credit for even being able to

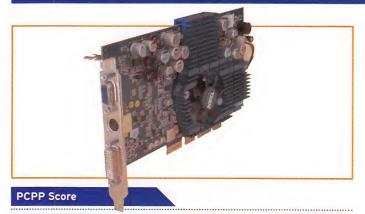
produce a competitive board when nVIDIA relies entirely on the implementation efforts of other companies. You will notice the benchmark results of the ATi 9700 Pro are identical to the PowerColor Evil Commando 2, and no wonder. since the cards are identical in appearance, too.

Like the 9800 Pro, the 9700 Pro has support for dual monitors and TV out. When this card was first released we went completely insane over its greatness. We've mellowed since then, the card has mellowed since then, but it's still great. This is currently the chipset of sensible choice.

Tyan

#### **Tachyon G9700 Pro**

#### ■ Price: \$660 ■ Distributor: Altech ■ URL: www.altech.com.au



Power: 4 Value: 8 Extras:

ike Interplay and various other companies, Tyan claims to have its cards built "for gamers by gamers." Well, if that were true, Tyan would know that what gamers like more than anything is free games. So, where the hell are my free games in my \$660 box, Tyan?

At least they've had a go at building their own card even if that does make it more expensive, complete with a very funky blue heatsink that for some reason puts us in mind of the DeLorean sports car immortalised by Back to the Future. Why? We really can't say.

Performance was, as usual, almost exactly the same as the other 9700 Pros in this PowerTest,

although it scored slightly higher on the 3DMark03 tests and slightly lower in UT2K3. Go McFigure.

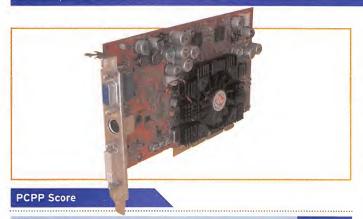
Speaking of the funky blue heatsink, we presume it's been included to offer higher overclocking potential, particularly memory. However, we toyed around a bit and found it no more able to overclock than the other 9700 Pro cards - the memory is already pretty much maxed out.

Like all the cards in this roundup, the Tyan includes power cables, composite and RCA connectors for TV action, although they are very short cables, so you will have to shove your machine right in there.

#### PowerColor

#### **Evil Commando 2 9700 Pro**

#### ■ Price: \$627 ■ Distributor: Altech ■ URL: www.altech.com.au



Power: 4 Value: 5 Extras: 4

**S** ome may cry this card is absolutely identical to the ATi reference board, right down to the same heatsink. Not true. If you look very closely you will see the ATi card has an ATi sticker on the PCB, and the SVGA output component has a slightly different shape. And some of the capacitors are different, too.

Anyway, with that out of the way there's not much else to say here that hasn't been said for ATi's card, except that the PowerColor is \$23 cheaper. That's the price of a fancy meal. With a girl.

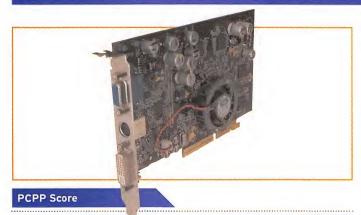
Like the 9800 Pro from PowerColor, the Evil Commando 2 comes with SEVEN games, although in this case, six of them are "lite", which means demo, so yah boo sucks to that. The full game is 4x4 Evo 2, hardly an A-list title, but still a bit of fun. It's good to see each of the various manufacturers is trying to give its customers something different, instead of an endless set of Soldier of Fortune 2s.

As you were probably taking for granted by now, the Evil Commando 2 also includes RCA and composite video cables, as well as a molex power cord for its supplementary juice requirements.

#### Sapphire

#### **Atlantis 9600 Pro**

■ Price: \$399 ■ Distributor: Achieva ■ URL: www.achieva.com.au



Power: 3 Value: 2 Extras: 3

where had high hopes for this card, high hopes, indeed. Boasting a .13 micron die process and much of the functionality of the 9800 Pro, we were expecting the 9600 Pro to wipe the floor with the FX5600s from nVIDIA. Unfortunately, it didn't.

Naturally, its 3DMark03 performance was much better than the FX5600s, but once again, we're TOLD this doesn't mean anything because 3DMark03 doesn't apparently use realistic gaming environments. Like, fully whatever, nVIDIA.

However, in a real game, Unreal Tournament 2003, the 9600 Pro sloped in a small but significant 6FPS behind the FX5600s. Sure, in real gaming you're not going to notice this kind of difference, so if the Atlantis 9600 Pro had been priced lower than the FX5600s it would have still been a more sensible choice.

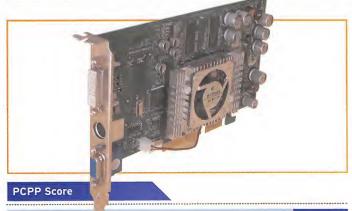
Sadly though, for some reason it's about \$20 more expensive than most FX5600s and a whopping \$102 pricier than ASmart's FX5600. If you can find a 9600 Pro cheaper than \$370, go for it. But at its current retail of \$399, Sapphire's 9600 Pro does not offer a big enough advantage over the FX5600 to be a sensible choice.

The 9600 Pro also has all TV-out cables and Soldier of Fortune 2 like the Atlantis 9800 Pro. Yawn.

#### **SMedia**

#### **GeForceFX 5600**

■ **Price:** \$379 ■ **Distributor:** BluechipIT ■ **URL:** www.bluechipit.com.au



Power: 8 Value: 8 Extras:

And so nVIDIA is back in the PowerTest with the GeForceFX 5600, pretty much the only FX chipset that doesn't suck. SMedia is a little known manufacturer that nevertheless seems perfectly able to churn out solid enough cards using the nVIDIA reference design.

Like the ASmart, the SMedia FX5600 uses the standard cooler supplied by nVIDIA, which looks old school but seems to do the trick - all the FX5600 cards had the exact same UT2K3 results, with the exception of ASUS's all-singing all-dancing V9560.

What's interesting about this card is that it's a VIVO model, with

the capacity to capture TV images, as well as outputting to TV. It's pretty standard stuff and nothing you'd want to have to rely on for any kind of work you want to publish, but it's certainly fun and the package includes splitter cables for TV in and out, so there's still only one TV port on the back of the card.

Apart from the TV in stuff, this is a pretty lean package. There are no free games, but there is however, a copy of WinDVD for all your movie needs.

SMedia may be a virtual unknown, but this card gives good account of the company's abilities.

#### **ASmart**

#### **GeForceFX 5600**





Power: 8 Value: 2

Extras:

his is the cheapest of the FX5600 cards in the PowerTest, but has performance pretty much identical to all the others except the ASUS card. So, we were impressed - \$80 gets you a damn fancy dinner indeed, maybe with TWO girls! Imagine that.

Yes, well, ASmart claims on the front of the box the GeForceFX 5600 redefines the limits of 3D graphice (sic) featuring SPEED, STABILITY, RELIABILITY and illustrates this with a knight riding a three headed dragon. Possibly bareback, although it's hard to tell.

Like the SMedia card, ASmart's

offering uses the standard heatsink and also has VIVO functionality, including the requisite splitter cables in the pack. Unlike the SMedia card, ASmart has put its own sticker on the heatsink! Amazing! WinDVD also makes yet another appearance for all your software DVD decoding pleasure.

It's clear these smaller companies are just churning out iterations of the reference board and we presume ASmart or Altech, or perhaps both, have done some dodgy backdoor deal to get this card to market at such a low price. But, who cares? \$80 dude, the chicks love a man with money!

#### AOpen

#### **Aeolus FX5600**

■ Price: \$379 ■ Distributor: BluechipIT ■ URL: www.bluechipit.com.au



Power:

Value:

Extras:

ack at the more usual FX5600 price point of \$380, we find AOpen's offering. AOpen is one of those companies that makes everything from cases to LCDs to graphic cards, and it does a decent job of all of them.

AOpen would have you believe that Aeolus is not an unacceptably filthy-sounding thing to call a videocard, and so has a whole line of these things, all with custom heatsinks and a custom black PCB, which looks very funky indeed.

Unlike the other FX5600 cards, the Aeolus FX5600 doesn't have TV in functionality, which is a bit of a blow since it has neither a

performance or a price advantage to lift it above the pack.

Also, the sofware DVD package is InterVideo's WinCinema, instead of the ubiquitous WinDVD, which lacks the WinEncoder and WinComposer portions of what claims to be "the world's most popular software DVD player."

Clearly, at this price point, free games are something that happens to other people, which is a shame as a decent DirectX7 game could really make one of these packs special. As it is, the Aeolus is merely solid. The black PCB sets it apart though, and these days you need all the individuality you can get.

#### **ASUS**

#### V9560 FX5600 Video Suite

■ Price: \$449 ■ Distributor: Achieva ■ URL: www.achieva.com.au



W ere it not in the sage.
Atlantis 9200's extremely ere it not for the Sapphire pleasing performance and tasty price, this card would have easily run away with the value award, because in ASUS style, this is one hell of a package.

It touts itself as a video suite, and why not. It combines TV in and out with PVR (personal video recorder) functionality to create quite the visual hub for your slightly nerdy looking TV room. All this connectivity is simplified with ASUS's rather nice break-out box that sits atop or aside your machine and sorts out all the cables.

Three decent games are included

- Ghost Recon, Rogue Spear Black Thorn and Worms Blast. Not exactly new, but if you missed out on them, a chunky package.

There's also ASUS's bespoke software DVD decoder as well as ASUS's own PowerDirector, a cute little application for making VCD movies that can be played in most good DVD players. Nice.

Software aside, the performance of this card is noticeably higher than the other FX5600 cards in both UT2K3 and 3DMark03 tests making it the clear winner for this chipset.

As a final touch, there's VR Aquarium, which is digital fish. Digital fish good.

#### Sapphire

#### **Atlantis 9200**

#### ■ Price: \$215 ■ Distributor: Achieva ■ URL: www.achieva.com.au



Power: 2 Value: 5 Extras: 2

A lthough Sapphire bombed out with the anticipated 9600 Pro, the Atlantis 9200 is a much stronger showing. This passively-cooled and thus silent card came in solidly ahead of the FX5200 cards that compete at its price point.

The 9200 is slightly more expensive than your average FX5200, but only negligibly so (what's \$15 get you these days anyway? Lunch at Maccas, if you're lucky), and the extra performance is easily worth more than a couple of Big Macs.

However, be aware that the 9200, unlike the FX5200, is not a DirectX9 card. It's based on the older 8500 core and doesn't include

support for various DirectX9 jiggery pokery. Does this matter? Well, given that there aren't any DirectX9 games out, probably not. Especially, as this card would hardly be able to run the likes of Doom 3,anyway.

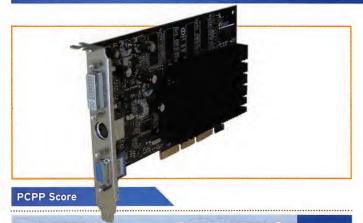
If you're still running a card from several generations ago - and let's face it, if you're only prepared to spend \$215 on a card, you probably are - then the 9200 is going to make a big difference. But now you have your 9200, start saving for some proper graphical power, please?

A quick word on Sapphire's package. WinDVD. Cables. An overclocking utility that you probably won't use. Next please!

#### **AOpen**

#### **Aeolus FX5200**

#### ■ Price: \$199 ■ Distributor: BluechipIT ■ URL: www.bluechipit.com.au



Power: 2 Value: 3 Extras: 1

an I just comment on the Aeolus brand again, for a minute? I mean, what the hell? How do these people come up with these names? Aeolus, the God of wind. What does that have to do with video? Hyperion now, I mean that would be a pretty cool name for a videocard.

Apart from laughing at the name, there's not a hell of a lot to be said for the Aeolus FX5200. It's cheap. It will make a big difference to your gaming life if you're still running a GeForce256. It has SVGA and DVI outputs, as well as TV out.

Apart from that, there's

nothing. This is the flimsiest package in the PowerTest, lacking a software DVD decoder and only a short cable to convert the composite TV plug on the card into an RCA plug for your TV.

But the card does have a black PCB and heatsink, like the FX5600, which means it will look funky if you decide to use it as the lynchpin of your MP3 machine, although with so many decent onboard video motherboards available, why would you bother?

Then again, it is cheap. But not so cheap you should have to put up with the kind of performance that Abit offers.

#### Abit

#### Siluro FX5200

#### ■ Price: \$176 ■ Distributor: Altech ■ URL: www.altech.com.au



Ouch. It's a shame that Abit's FX5200 is such a poor performer because the software package is quite decent, and it does include a composite video cable of respectable length for TV out.

Sadly though, this baby brother of the thunderous Siluro FX5800 brings up the rear in our benchmarks in a very definite way, failing to walk home with even a thousand 3Dmarks.

Negativity aside, inside the package, which leaves you decent change from \$200, you get a software DVD decoder - Siluro DVD 4 - a demo of Soldier of Fortune 2, a demo of a funky

satellite imagery program called Earthviewer 3D and the NV version of Windows Blinds, which funks up your desktop.

As a final note, the Siluro FX5200 does have the funkiest passive cooler of all the cards here today, as the chunk of metal has been carved in such a way that each of the cooling vanes spells out the Abit logo, with the front of the cooler cut on a slant for larger logo presentation. Crazy.

Of course, perhaps this funky, but hardly functional, cooler has some effect on performance... surely not. That would just be too ironic wouldn't it?

## **BENCHMARKS AND AWARDS**

We used two benchmarks for this month's Power Test - Futuremark's 3DMark'03, a synthetic benchmark that focuses on your video card's performance when it's getting the DirectX 8 and 9 treatment, and Unreal Tournament 2003, the latest widespread game engine that is quite happy to bring even the most powerful video card to its knees. As you can see, when it comes to products that are based around the same graphics chipset, differences are minimal. We're talking within the margin of error minimal.

3DMark03 1024x768x32 (3DMarks)		
Abit Siluro FX5800 2799		
Hercules 3D Prophet 9800 Pro	5547	
PowerColor Radeon 9800 Pro	5536	
Sapphire Atlantis 9800 Pro	5506	
ATi Radeon 9700 Pro	4681	
Tyan Tachyon G9700 Pro	4706	
Powercolor Evil Commando 2 9700 Pro	4680	
Sapphire Atlantis 9600 Pro 3115	41	
SMedia GeForceFX 5600 2608	71	
ASmart GeForceFX 5600 2610		
AOpen Aeolus FX5200 2612	- 1	
ASUS V9560 FX5600 Video Suite 2688		
Sapphire Atlant's 9200 1118		
AOpen Aeolus FX5200 1007		
Abit Siluro FX5200 936		
0000 750 1500 2250 3000	3750 4500 5250 6000	

Unreal Tournament 2003 1024x768x32 High Detail (FPS)		
Abit Siluro FX5800	168	
Hercules 3D Prophet 9800 Pro	170	
PowerColor Radeon 9800 Pro	167	
Sapphire Atlantis 9800 Pro	165	
ATi Radeon 9700 Pro	148	
Tyan Tachyon G9700 Pro	147	
Powercolor Evil Commando 2 9700 Pro	148	
Sapphire Atlantis 9600 Pro 87		
SMedia GeForceFX 5600 93		
ASmart GeForceFX 5600 93		
AOpen Aeolus FX5200 93		
ASUS V9560 FX5600 Video Suite 97		
Sapphire Atlan is 9200 43		
AOpen Aeolus FX5200 36		
Abit Siluro F X5200 33		
000 25 50 75 100	125 150 175 200	

#### **POWER AWARD**

Hercules 3D Prophet 9800 Pro Price: \$999 Distributor: Hercules URL: au.hercules.com

It's hardly surprising Hercules takes out the top spot in this PowerTest, cleaning up in both benchmarks. Sure, its lead is slim to the point of us tutting about margins of error, but, hey, when the competition is this close, a lead of 2FPS in three consecutive repeat tests has to mean something.

Of course, we're fooling - the Hercules wins because of its bundle. A full version of Raven Shield along with Power DVD goes a long way in our hearts, and the inclusion of such niceties as the copper cooler and RAM and voltage stabiliser heatsinks all go toward helping Hercules carry off the top award. Again. We imagine Hercules is still patting itself on the metaphorical back for deciding to ditch nVIDIA all those years ago.

#### **VALUE AWARD**

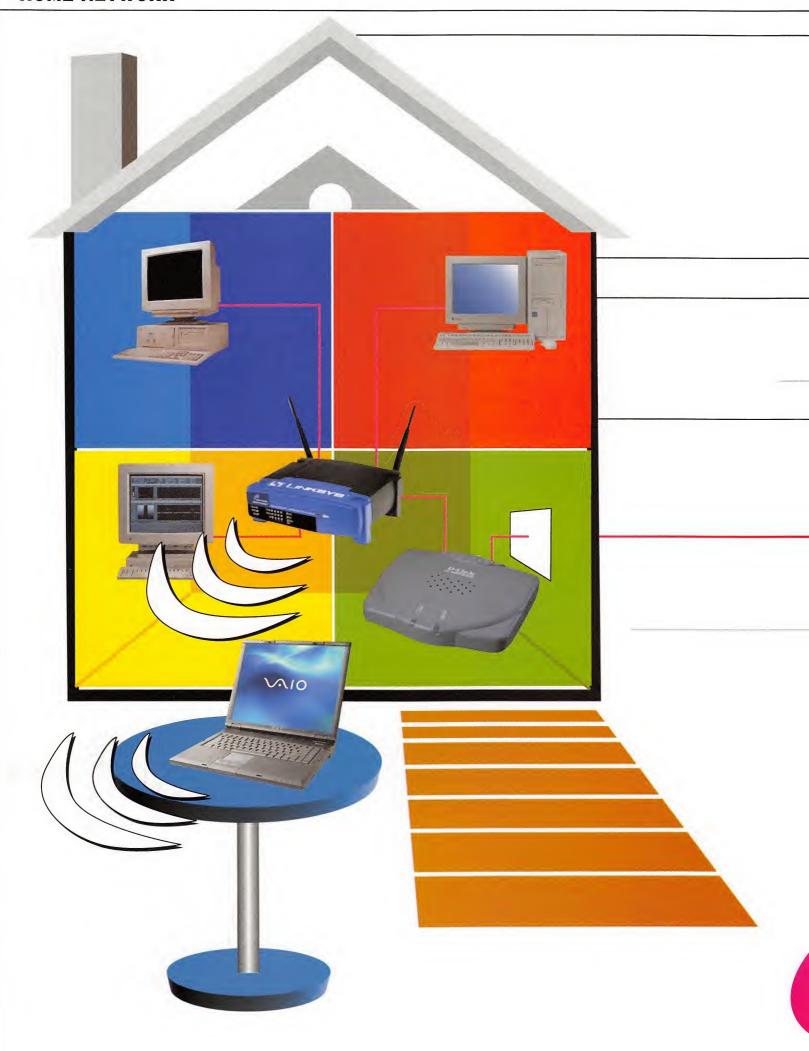
Sapphire Atlantis Radeon 9200 Price: \$215 Distributor: Achieva URL: www.achieva.com.au

Let's just say we were impressed. We were impressed at the performance of this card before we sourced the price, anyway. And then, when we discovered it sold for only \$215, we were ecstatic. It soundly beats the pants off all the FX5200s and costs only a thin slice of fiscal goodness. And the passive cooling makes us smile because we can finally hear ourselves think. Of course, we would have liked a game or two included in the bundle. but we guess at this price there's not much call for that. A full copy of PowerDVD keeps us going anyway.

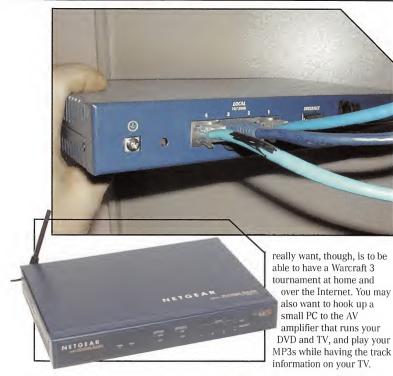
#### HIGHLY COMMENDED

ASUS V9560 FX5600 Video Suite Price: \$449 Distributor: Achieva URL: www.achieva.com.au

We need to mention ASUS's Video Suite again. This was an impressive package and surprising performance from a chipset we were pretty much set to dismiss. Of course, it's not for the hardcore gamer, but users who are fixated at getting good value for money should definitely take a look at this package. It includes 3D fish, people, need we say any more?



# GREAT HOME IETWORKS Andrew Calvin takes you through a step by step process of setting up a home network for some excellent gaming.

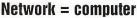


So, you've got a computer, your parent/spouse/child/partner/house mate has a laptop, and you've just built a spare PC to use as a server and multimedia entertainment centre. What's the best way to pull them all together so they can talk to each other, share files and maintain security, all while sharing an Internet connection?

One of the best aspects of home networking is there are a dozen ways to do it, and most of them are quite acceptable. In this article, we're going to look at a few of those ways and try to adopt some of the better practices. Doing things properly usually means fewer things will go wrong, things that already work will function more efficiently and you'll have

fun in the meantime. We're going to assume you have had a look inside your network control panel, and have heard of TCP/IP. You've probably read articles in this esteemed magazine on setting up a home network, and you may already have a few things

happening. What you



I'm a lawyer and senior manager (amongst other things) in an organisation of over 1,600 people in three countries. Our Sydney office has a direct 2 megabit full-duplex HDSL connection to the Internet and our other offices have something similar. We also have ATM, Frame Relay and a bunch of other things only the initiated know about. All I know is I don't even notice whether I'm using an Oracle database 15 metres away or one of our web servers in New Zealand. To me, the network is simply transparent; if one of my applications needs a resource on our network or the Internet, it will just get it (and quickly!). If I listen to a CD on my PC, it will get the album details instantly from CDDB; if I want to check the airline timetable, I just hit

the Internet. Not having to think about the network lets me just get on with things, and that's what this article is about.

At home, I found myself wanting a similar experience. When I wanted to use the Internet I didn't want to have to worry about making a dialup connection. I didn't want to plan all the Internet related things I wanted to do that night so I could do them all at once. I wanted to check the news at 7pm, play an online game an hour later, then check the weather before I went to bed to see if I could bike to work the next day. I decided then that speed wasn't the ultimate limiting problem of the Internet, it was availability.

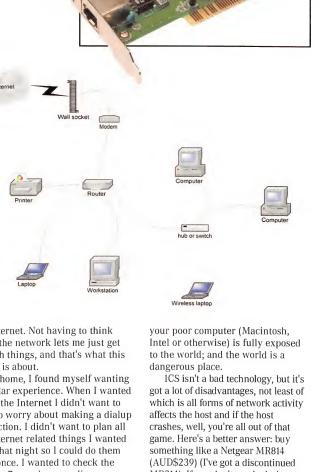
Broadband users have got availability more or less sown up, provided the PC is left turned on and the user is not using Internet

Connection Sharing (ICS) without the host PC shut down. Oh, and your laptop doesn't have unusual Ethernet network settings that need to be fiddled with when you get home and you're not sick of setting up software firewalls on your machines. That's all a bit cumbersome. So, here you are with broadband, a few PCs and you're ready to game, but it still doesn't seem quite right. You're ready for the better network...

#### **Architecture**

Your broadband connection (cable, in my case) is a socket on the wall. Your ISP probably had you connect your "modem" (they aren't really modems, but it'll do for now) to the wall and your PC to the modem over USB. If you're lucky, your ISP may have connected your PC to the modem over Ethernet. Either way, you don't have much of a network and

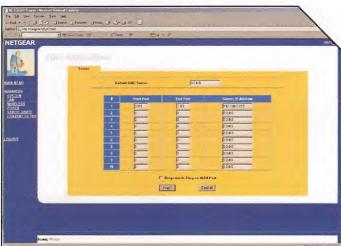
which is all forms of network activity affects the host and if the host crashes, well, you're all out of that game. Here's a better answer: buy something like a Netgear MR814 (AUD\$239) (I've got a discontinued MR314). If you don't need wireless networking, then go for something like the Netgear RP614 (AUD\$159). D-











Link has the DI-740P for the same price, or check out Linksys, Belkin or Netcomm for alternatives. All these devices are routers, which also offer some degree of firewalling, content filtering, DHCP, Network Address Translation (NAT). Most, if not all, can be managed over a web browser.

These units all work in a similar way; they have a WAN port to connect to your modem over an Ethernet cable and they have four LAN ports to immediately connect four computers over Ethernet. Those machines can then share the broadband connection, as well as see each other on the local network. Voila! You may now start your fourway Warcraft session.

Well, actually, there are few extra things to do, but they are very simple.

The important point here is to not complicate things...

#### **Get routed**

The first step is to get the router running. I'll use the MR314 as an example. Routers connect two separate networks together; in your case, it's going to connect your internal network with TCP/IP addresses of 192.168.0.x with the Internet, which has real-world addresses, such as 148.87.9.44. Those two addresses are on different networks, and your router keeps internal traffic on the inside, so I can't see what's going on in your house. However, I can route network requests outside to the Internet whenever required. In the same way, all the Internet







So, you've got broadband and a router, what's next? Make sure all your PCs have 100MB Ethernet cards, for example, D-Link DFE-538TX (AUD\$25), or wireless cards if you have the right router. Turn off ICS if it's

running. Turn on the router and let it boot. Connect your PC to a LAN port with an Ethernet cable.

Make sure your network control panel is set up to automatically obtain an IP address and DNS server address.

Fire up a web browser and go to http://192.168.0.1 (or whatever your manual says). Log in (see the manual for security) and set up a good password. Follow the setup wizard and read the manual again. At this stage, you should connect the router to the broadband modem. Give it a minute or so and you'll be in business. Hit the Internet and feel the power.

#### Go crazy

NETGEAR

traffic outside won't

flood your network; only traffic that needs to come in (and

is permitted to come in) will find

its way onto your little network. Your router will end up with

two IP addresses. On the LAN (the

internal side) it will give itself the

WAN side, your ISP will give it a

real-world address. You don't need

address 192.168.0.1 and on the

to worry about the real world

internal machines.

address - leave that to your ISP.

Your router also has the ability to

distribute addresses, that is, act as a DHCP server, to all of your

The reason these routers will

pick either 192.168.0.x or 10.x.x.x

is because these address ranges

are reserved to be used inside local area networks. Most routers

to the Internet. Your router

few other cool things.

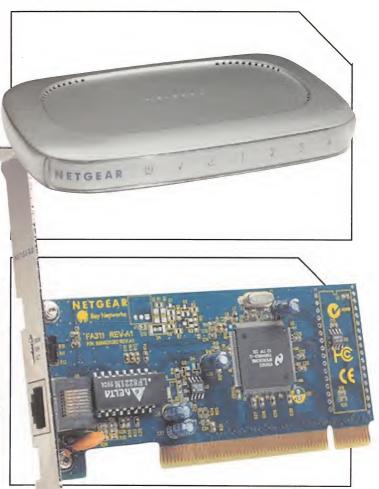
are not used on the Internet: they

won't even allow machines with

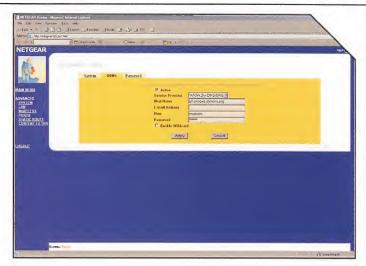
those addresses to connect directly

protects your network and does a

At this point, you can try connecting more PCs to the LAN port. The router will allocate addresses to each machine. If you're crazy (like my household), you should consider a five port 10/100MB switch (avoid hubs), which allows you to connect even more PCs. Connect one LAN port on the router to the switch, and you'll be able to use the extra ports on the switch. Most of the routers will allow you to add up to 253



#### **HOME NETWORK**



machines, however, the resulting throughput will be poor. I have the D-Link DSS5+, which is a good home switch, but was superseded by the D-Link DES-1005D (AUD\$89).

Why a switch instead of a hub? Switches work way better. Your network card spends a lot of time doing nothing, so when it does want to talk, the switch will switch it directly at its maximum speed and no other machine hears the network conversation. When it's done, it will give another machine-full throughput. A hub, on the other hand, spreads data around like Vegemite, forcing everyone to talk simultaneously at slower speeds.

#### That's natty

The curious among you will wonder how four or more machines can share the single IP address your ISP gave your router on its WAN port. Well, it's pretty easy and it can work for hundreds of machines! The router uses Network Address Translation (NAT) and it achieves two very important things: it lets hundreds of machines share a scarce real-world IP address, and it

goes some way to protect your network. Let's say you connect your PC directly to the Internet with a real-world IP address. Nasty people can port-scan your PC, hit you with denial of service attacks and do other terrible things. However, with a private IP address of, say, 192.168.0.5, your machine is, effectively, invisible to such people. However, it won't stop you browsing or playing games via GameSpy or other gaming networks. NATing will stop you playing direct IP Internet network games, but that's so dangerous from a security point of view, you shouldn't be doing it over broadband, anyway.

The Netgear FR114P (AUD\$239) works much like the other devices above, but it goes even further and does some serious firewalling. It has intrusion detection, protection from denial of service attacks, stateful packet inspection, which is a good thing, and a bunch of other objectives a software firewall just can't do. If you're into Internet gaming for the long haul (and who isn't?), then this sort of device is really your best bet. This and other devices usually do









some content filtering and may even apply filters at specified times (before the kids' bedtime). Best of all, they allow comprehensive logging of Internet usage, and this means users can use exercise judgement and self-control, rather than being treated like a bull in a ring.

#### But...

When you sign up for broadband you will usually have a choice of modem. I have a Motorola SB4200, which can connect to the PC via Ethernet or USB. Cheaper modems often only have USB; you need to avoid these. I understand if you get Telstra ADSL then your only non-USB choice is to get a modem with four LAN ports already built in. Get one of these and one of the routers mentioned above. Connect the router to one LAN port and ignore



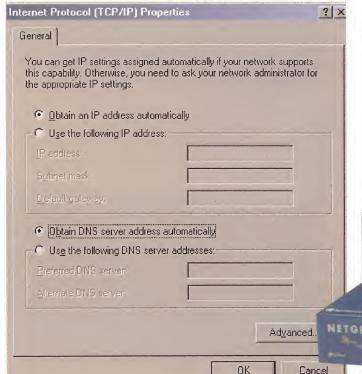


the other three. You'll end up with an extra level of NATing, but it shouldn't affect gaming over game services, such as GameSpy.

You could use a USB modem, but you'll end up with most of the problems this article has tried to solve; you'll need software firewalling, Internet connection sharing and the network will be dependent on a PC, and we all know how reliable they are. Last time I checked my MR314, it had been up for 38 days, and that was only because we had a power outage last month.

#### Airhead

We can also throw a WiFi (802.11b) laptop into the mix, or even dispense with Ethernet cables under the carpet, so long as you have a wireless capable router, such as the MR314. The wireless devices will pick up addresses just like wired devices, but you'll be able to surf in your bath.







#### Dialup

By the way, it's worth noting even if you don't have a broadband connection, you can gain most of the benefits of always being connected. All you need is (preferably) a second phone line, and a modem/router, such as the Netgear RM356. It has four internal network ports and a phone socket. You set up a dialup connection in the 356 using a web browser. It will dial on demand much like ICS, hang up after a specified timeout if required and keep your network running with DHCP and NAT. They don't crash. If you play LAN games in your home, then you'll find this useful. The only downside is its price (AUD\$500). If you've got an old

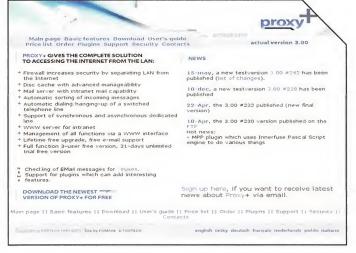
unused PC, a modem and a spare switch, you can achieve the same effect by installing Mandrake 9 and setting up ICS using the wizard (drakgw).

#### The ISPs

Sharing an Internet connection is great, especially if you have three housemates and you all kick in for 3 gigabytes per month. However, you'll need to check whether your ISP is comfortable with such a setup. Optus is cool with internal networks, but it won't support them; any problems are all your own, and when they install the cable they will just want to connect it to a single PC. When the nice man leaves, rip it all apart and get your router going!







Telstra is, I understand, a bit less network friendly and restricts the number of internal users. However, as far as I know, there is no way to determine the number of users behind NAT, so all they have to rely on is your honesty...

Optus, Telstra and others have one thing in common - they don't like you running servers. There are two main reasons for this: it interferes with basic domestic service bandwidth; and they like to sell that sort of thing on a more commercial basis.

If you wanted to run, say, a web server, or use Terminal Services from work to home (the reverse of working from home), then your groovy router is going to stop you. That is, unless it supports port forwarding. Since all your internal machines share an external IP address, you can't just TS into one machine. If you set up port forwarding on the relevant IP port (3389) and direct that port to one particular internal machine, say, 192.168.0.220, then all TS requests will only go to that machine. Of course, you'll need to move to static IP addressing, but that's beyond the scope of this article. You could also set up a web server on that port or another machine on port 81 and direct all requests to it. Since Optus and others don't like you setting up web servers, they will sometimes block obvious ports like port 80, but devious people can work around that. However, since your

IP address will change from time to time, there are organisations, such as dyndns.org, and settings in some of the routers that work hand in hand, so users can always find a server no matter how often its IP address changes. Just remember, there are good reasons why you shouldn't run servers and, moreover, it can fundamentally breach your ISP contract. On the other hand, opening up TS to administer your PC remotely is a good thing and singleuser access to a web server for specific personal information may not even annoy your ISP, so it doesn't hurt to ask...

Another peculiarity of Telstra is the 'heartbeat' and login. Whatever device you buy, make sure it handles the Telstra login process. The D-Link DI-713P is one example of a device that is said to work well. Do some research and check hardware specifications; make it clear to the salesperson the device you want to purchase must work for your ISP.

#### Conclusion

Well, now you're on the way to sophisticated broadband networking. Pay attention to antivirus updates and check out bandwidth savers such as Proxy+(www.proxyplus.cz/). There are a lot of other things you can do once you've got things working stably. In the meantime, there's a lot of broadband gaming to do, and this network will, hopefully, keep you

## IN REVIEW



of Nations, while also superb in numerous ways, seemed to fall between two stools, as John concludes in his review. Is the micro-management of a turn-based game really appropriate in realtime? And can such depth ever be compatible with the one hour limit imposed on any prospective online game? These are two of the ambitious challenges Big Huge Games set themselves and Rise of Nations doesn't quite meet them.

So our highest accolade this issue goes to a six month old PlayStation 2 game. Sure, it's now reviewed on PC, but for all intents and purposes it's the same game PS2 owners were playing last Christmas. To judge by the ceaseless deluge of anti-console vitriol arriving in our Inbox each day, some of you might not like to hear that. But it's true, Grand Theft Auto: Vice City is the best game we've played in ages. And now it's on PC. Rejoice!

> **David Wildgoose** Editor, davidw@next.com.au

#### WHOOPS!

We screwed up last month in attributing an incorrect score to Medieval: Viking Invasion. Although on this page it scooped our game of the month award, it would've made more sense if a score of 87% had been sitting on the bottom right corner of its review page. Apologies to the Creative Assembly and Activision for the mistake.

#### **PCPP TECH REVIEW SYSTEM**

Here at PCPP we scour the land for the latest in PC technology, then ruthlessly test it in the decentralised hardware democracy that is the PCPP Tech Bunker. A hardware review is much more objective than a game review - there are quantifiable elements to most bits of good kit, and the benchmark, as always, reigns supreme. We take into account the performance of a product first, but price is also a factor. We provide reviews of hardware you can expect to afford, as well as the occasional item that's too cool not to review.

All our review products are compared against at least one leading brand to give a meaningful indication of performance and what you can expect should you actually buy the thing and put it in your precious machine.

Each product is rated out of 100, where a higher score indicates a better balance of price and performance. For items where the prices is low and performance is not relevant, such as modding accessories, a more subjective analysis of the product is undertaken, where we use our experience with such items to determine whether or not they'll help make your machine look cooler or just plain tacky.

Finally, those products that are 'must have' items receive the coveted PC PowerPlay Gold award. This award is reserved for hardware that is serious kit. indeed, and will improve your PC so it's well worth the investment.

#### **GOLD AWARD**

#### **HIGH DISTINCTION**

#### DISTINCTION

#### CREDIT

#### **PASS**

#### FAIL













The ultimate accolade. A game that receives a Gold Award is an essential purchase, and the only excuse for not owning it is either not having a powerful enough PC, or not having a PC at all. Or arms. It represents a new direction in gaming, a new benchmark against which all others will be measured. all others will be measured. It defines its genre, or creates a new one. It is gaming. You must own it. This is the finest in gaming. A fresh concept, a perfect execution, a meaningful extension to a tried and tested format, one or all of these are required for this score. We strongly recommend the purchase of each High Distinction game, but extremely fussy gamers may want to skip those HD games that don't also receive Gold Awards.

An intriguing new concept or a bold new direction that manages to pull its new trick off with a reasonable degree of flair. You will be impressed, at either the graphics, the gameplay or some other new element that you may not have encountered before. Or perhaps this is a familiar gaming concept, but one executed so well it's almost - but not quite - an essential purchase.

Solid, playable, largely bug-free, entertaining and maybe even a bit unexpected, these are the hallmarks of a game of Credit. You may have seen it all before, but you won't mind, because a Credit game does what it says on the box - it plays well and it keeps you hooked. An essential purchase? Not necessarily, but worth consideration.

A game that receives a pass is playable, but its concept may be flawed, its extras may be lacking or its graphical enhancements may have fallen off somewhere in a lengthy bug-fixing process. And bugs there may be, although in the end the game will, as we say, work. Purchase if you're curious, but discerning gamers will probably look for something more substantial.

There are more than 5000 games released each year. Some are gems. Some are merely unremarkable. Others are nothing more than a shameless grab for cash. Graphics will be rudimentary and gameplay will be worse. If you see someone considering a game that has failed, gently take them by the elbow and hurl them out of the shop. It's your duty as a good citizen.

**85-100 75-84 65-74** 





**74** Warcraft 3: Frozen Throne

**76** GTA: Vice City

**78** Rise of Nations

80 Shadowbane

B2 Day of Defeat

**84** Blood Rayne

86 Big Mutha Truckers

1111

**87** Tropico 2

**88** X2: Wolverine's Revenge

iPod

89 Will Rock

### **TECH**

Tech of the Month PSU Showdown



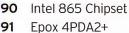








Playlists



92 Intel Pentium 4

94 Mushkin PC3200

Apple Ipod

8 Antec Minicolour light sticks

9 PSU Showdown



Developer: Blizzard ■ Publisher: Vivendi ■ Distributor: Vivendi Universal ■ Price: \$59.95 ■ Rating: G8+ ■ Available: Now

### SYSTEM

### NEED

P2-400 128MB RAM 8MB 3D Videocard

### WANT

P3-733 128MB RAM 16MB 3D Videocard 4x CD

### MULTIPLAYER

Yes

### ONLINE

The PCPP random website generator threw this little chestnut at us. We were originally hoping that it had something to do with Apu's Kwik-E-Mart Freezer used for amateur cryogenics and for hiding his secret vegetarian headquarters, but it's just for frozen

tarting off in the RTS field as the company that dared rip off the seminal Command and Conquer series, Blizzard has gone on to claim a large slice of the RTS pie and in the process attracted legions of fans.

Warcraft 3 has proved, more than any other title, that Blizzard isn't a mere imitator, with its latest effort featuring imaginative new creatures and special hero characters with unique skills. The Frozen Throne expansion pack builds on this ever solid blueprint with a gaggle of fresh heroes for experimenting and a plethora of new creatures and structures to accompany them. There are approximately four new heroes for each faction, as well as another four or so neutral heroes for recruitment.

In this sense, the expansion pack represents solid value with its long and imaginative levels in singleplayer missions, which adds a rather sumptuously sized cherry to the top of an already impressive concoction. This is likely to please experienced Warcraft 3 players who are hungry for tougher challenges.

Visually, the game builds on the already exemplary record set by the original with superbly detailed creatures, lush and ever changing backdrops and delightfully varied luminescent spell effects. There is a full bag of tricks on show here and it is pleasing to note how

the graphics don't look dated proving that the Warcraft 3 engine is weathering against the ever cruel test of time. In fact, it appears Blizzard has been digging in their ever voluminous bag of tricks, as there are plenty of neat examples of graphical garnishing on offer.

As you'd expect with any Blizzard scripted campaign, the narrative is full of twists with evil pacts, deception, revenge and redemption served in generous portions, making the plot much more than incidental window dressing.

The voiceovers meet the standard we expect, which in other words, means you might feel some of the characters take themselves too seriously. However, for the most part, the narration is credible, even if the names and phrases sometimes sound a little silly (Ilshu fal nah na, anyone?).

### A dozen is never enough

Frozen Throne doesn't muck with the slick Warcraft 3 interface in any significant way and as such ensures that the game is as easy and accessible to play as its parent title. However, this also means that on a strategic level there is the usual level of micromanagement which accompanies all Blizzard RTS titles.

So you'll be forced yet again to either send out small parties which adhere to the

maximum number you can control at any one time with a drag and drop system, or you will have to control task forces by separately assigning them to hot keys. Either of these two approaches will get the job done, even if this means having micromanage your troops and feeling like it's an artificial device to ensure you are kept busy by clicking on your forces as the battle unfolds.

That said, being only able to control a maximum of a dozen characters at one time does make sense when you remember some of your characters have specific special abilities and spells. After all, you need to be able to select these individually by clicking on their portraits, which are displayed in the grouping box in the menu. This also assists in keeping force number down.

The campaign delivers a predictable smorgasbord of explore and escape missions, base building scenarios and rescue sorties. However, there are plenty of more diverse missions, too, and the overall mix will keep you entertained without the fear of repetition.

### Diablo style tricks

There are some clever tricks in the Diablo style small party management missions. For example, the sanctimonious Maiev has a Blink ability that she can use to teleport to hidden areas and flip switches. This

food, that's all.





### SAME AS IT EVER WAS

The funny thing about good gameplay is that it is essentially the same no matter what the spec of your PC or the level of graphical garnishing. Having dusted off a copy of Warcraft 2 recently for a friend with an underspecced PC, it was interesting to witness just how much of the great stuff we have been enjoying in more current iterations of the saga was also a part of the earlier one in the series. Sure Blizzard has added much that is new, with hero units, special skills and much more unit diversification, but Warcraft 2 still had an eerily familiar feel. There were resource gathering base building missions, small party exploration sorties and missions where you had to overcome multiple bases fighting on several fronts. These are all hallmarks of Blizzard's RTS greatness and while some might say we have been playing the same game for over a decade now, we'd like to think this isn't the issue since Blizzard keeps tweaking their superb formula with such skill. Adding new elements to a wellknown blueprint can only drive the genre forward. Roll on Starcraft 2!

way, she gives the rest of her party access to a dungeon. In a similar vein, Kael'thas, the Blood Elf, might use his skills to stop enemies from flipping switches that would otherwise sound the alarm and spell the end of the quest. The ever sneaky Kael'thas

### **MULTIPLAYER**

Frozen Throne's multiplayer play is looking promising. You will find an intelligent use of neutral heroes and shops scattered around the map, which could prove to the small differences needed to tip a fight in your favour. It also feels like Blizzard has added new units and tweaked old ones with a view to making multiplayer stoushes more even. The beleaguered Night Elves have received a much needed injection of hard headed toe to toe staying power with the gigantic tree wielding Mountain Giant. This big boy has hit points aplenty and the ability to devastate structures and enemy units and helps the otherwise weak Night Elves in fighting face to face melees. The Night Elf hero, the Warden, probably has some of the best abilities, with lots of damage dealing attacks like fan of knives, poisoned strike and the ability to summon an Avatar Of Vengeance. Each of the factions has solid new units that seem to round up the makeup of the overall force. This should make multiplayer action even more







uses his Banish spell, which renders his target vaporous and makes it impossible for them to touch anything. Nifty, eh?

The other missions are also imaginative and original. There is one challenge that is like a perverse reincarnation of the venerable Space Invaders, where you have to build turrets and use your heroes as a last ditch defence as you stop wave after wave of suicidal explosive toting Gnomes from crashing into a portal you must protect if you are to escape an enemy held prison.

This level is a fast and joyously destructive change of pace with you erecting defensive turrets that do their best to mow down the massive columns of enemy units as they roll on by with suicidal gleams in their eyes.





### Tug of war

Or if you are after something a little more directly inspired by other RTS classics, there is a 'tug of war' style mission that could have been plucked right from the Age of Mythology design document. This mission sees you sending your troops into battle as you seek to hijack a convoy carrying your leader, the demon Illidan, by cart to the enemy camp. Naturally, you find the road is well populated by enemy troops, so you have to take out the guards and then keep the cart under the control of your heroes whilst ensuring the enemy units are seen off as quickly as possible. Lose control of the area around the cart, and the damn thing is dragged to the enemy camp and where certain defeat awaits. This mission is very similar to the convoy chasing challenge near the end of Age of Mythology.

So, there is much on offer here, with many new units, mission elements and little graphical touches. If you enjoyed Warcraft 3, then this expansion pack delivers lots of extra elements and breathes life into an excellent original with aplomb. It should keep many of us happy until Starcraft 2 arrives (please, let it be soon!)

Steve Polak



### FOR

Tough missions **New units Eye-candy** 

### AGAINST

Too hard for some Micro-management Mele hard to control

### OVERALL

Solid, deep and with no flaws - this will please the Warcraft 3 faithful.





**Developer:** Rockstar North ■ **Publisher:** Rockstar Games ■ **Distributor:** Take 2 Interactive ■ **Price:** \$99.95 ■ **Rating:** MA15+ ■ **Available:** Now



### SYSTEM

P3-800 128MB RAM 32MB Videocard 915MB HDD

WANT

P4 256MB RAM 64MB Videocard 1.5GB HDD

MULTIPLAYER

No

### ONLINE

www.kentoaul.com

Yeah, it's old, but this 80s spoof site by one of Vice City's main characters is still worth a visit. And a laugh. PCPP Gold Award and Game of the Month accolade for a bloody
PlayStation 2 port? We must be having a laugh, surely? But no, gentle reader, it's true, the best PC game in ages has arrived via the least powerful console on the market, not to mention six months late. Upon release late last year, Grand Theft Auto: Vice City was a superb slice of electronic entertainment; six months on, its sheer audacity still manages to take your breath away.

Vice City is a vast, expansive world in which you're free to pretty much act as you please – a digital sandbox where the spades and Tonka trucks have been replaced by flamethrowers, helicopters, rocket launchers and Rhino tanks. Although ostensibly a criminal, you can choose to pursue several alternate careers: a taxi driver ferrying passengers across town, a paramedic rushing patients to hospital, a policeman in hot pursuit of felons, a fireman dousing fireballing vehicles, even a pizza delivery boy or "ice cream vendor" (read: drug dealer)

Then there are the unique jumps (36 ramps scattered around the streets, the successful negotiation of which will launch you over entire buildings - in majestic slow motion - and pay

handsomely to boot), the hidden packages (100 statues hidden in the city's tiniest nooks and crannies), the remote-controlled vehicle missions (where you race an RC car or helicopter), the bloodthirsty rampages (killing hordes of gang members within a strict time limit), the offroad challenges (fearsome obstacle courses completed on dirtbike), and the stunt arena (a stadium track featuring nightly dirtbike stunts and destruction derbies).

And of course, if that gets all too boring, you can simply grab a katana or a sniper rifle and wreak some havoc on the Vice City populace. The cops won't take too kindly to such activities, but – hey! – you can always steal their cars to run them over if they complain too vociferously. Oh, and before I forget, there's a story in there somewhere, too.

Unlike GTA3's anonymous hero, this time you play a guy with a name and a past. Tommy Vercetti is the name; dirty work is the game. After a spell in the slammer, you've been relocated to Vice City at the behest of "da boss", Sonny Forelli, and instructed to set up a base of operations for Sonny's unlikely range of "business interests". But Tommy's his own man at heart, and it's not long before his eyes start looking for a bigger

prize than just a slice of the pie.
Unfortunately (or fortunately, depending on how you look at it), he's not the only man in town. Ricardo Diaz owns Vice City and Tommy's gonna have to take him out.

In the early stages, the missions are fairly uncomplicated: steal a car, deliver this, kill this guy, meet someone at that place, etc. If you've finished GTA3, the first hour or so will be a walk in the

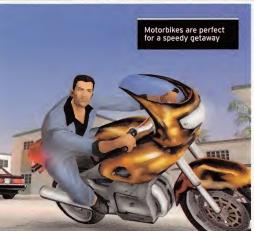
### FA-FA-FA-FA-FASHION!

If the 80s weren't about music, then they were certainly about incredibly bad and incredibly cool clothes. Vice City exploits this familiar stereotype by cladding Tommy in a range of outfits throughout the game. There's his default stone-washed jeans and blue Hawaiian shirt, the courageously camp workman's overalls, the dapper tartan golfing slacks and vest combo, a daggy tracksuit, even a police uniform for going undercover, to name but half of the available costumes. Once each new outfit is unlocked, Tommy can change into them at any time by visiting several fashion outlets through Vice City. We'd go the pimp suit every time.











park. The park may be littered with bloodied corpses, but you'll be walking nevertheless. Later on, things get, shall we say, a little bit nasty. You'll be chasing guys through the streets with a chainsaw. You'll be leading the charge in massive gangland shoot-outs. You'll be stealing a tank from the middle of a military procession. You'll be massacring entire gangs while riding shotgun (read: assault rifle) on a helicopter. You'll be cavorting across Vice City's Leaf Links in a golf cart chase of Benny Hill-esque proportions. In fact, you'll be doing more things and having more fun than you'd likely have playing the last six months worth of games put together.

If this review seems like a list of features, like some Lonely Planet guide to Vice City, then consider it a convenient way of emphasising just how deeply designed and intricately varied





### **SYNTH-TASTIC!**

If the 80s weren't about clothes, then they were certainly about incredibly bad and incredibly cool music. Vice City exploits this familiar stereotype by offering Tommy a selection of uniquely styled radio stations while he's motoring about town. Unlike GTA3, Rockstar has actually licensed dozens of genuine "hits" from the time period, instead of recording their own original tracks. The impact of this soundtrack on the game's atmosphere cannot be understated. Whether you're biking down the coastal freeway to Quiet Riot's "Cum On Feel The Noise" or cruising through Little Haiti to Run DMC's "Rock Box", it's a synaesthetic experience you're unlikely to forget.

its gameplay is, rather than, for instance, sloppy journalism on my part. Yet it's the sheer scope of the GTA games that makes the experience so pleasurable. There's always something to do, whether it's tackling the main story missions or absconding on some frivolous side mission. This is precisely the kind of game in which you'll still be discovering new sights and novel enterprises days and weeks after you started.

More importantly, the GTA games and Vice City more so than before excel in providing the potential for player-authored experiences. This highfalutin' term describes the centre-piece of any genuinely non-linear gameplay. It's about the designer presenting challenges, and the tools to overcome said challenges, while the player devises and applies his or her own personal solution. Vice City is absolutely overflowing with such moments, allowing you to put your stamp on each and every scene and situation. In a similar vein to Deus Ex (who'd have thought, eh?), it's the ultimate "watercooler" game, inspiring daily office conversations where everyone relates anecdotes about their own individual experience of a particular mission. You'll be amazed at how your friends





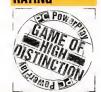
accomplish certain objectives and baffled that they didn't think of the easier, more obvious, approach you chose to take.

But all these things were part and parcel of the PS2 version. And in that respect, little has changed for this PC edition. Apart from the superior visuals enabled at the PC's higher resolutions, the only other additions and improvements are the ability to customize your own radio station (and who hasn't got a worthy MP3 collection?) and character skin, and, for those without gamepads, a significant overhaul of the control system. It's in the latter where you'll notice the most obvious difference. Mouse control during the on-foot sections is a blessing, as it allows swift and exact targeting with each projectile weapon. Using the mouse to steer while driving is less successful, though once vou've reconfigured the keyboard layout, it becomes quite manageable to drive with the keys. The only issue is you'll be forced into either covering a lot of keys with one hand or switching your mouse hand onto the keyboard while inside a vehicle. Not exactly an ideal situation, but to be honest who cares when you're having this much fun.

How much fun? Let's see... Game of the Month, Gold Award, and a score of...

David Wildgoose

### RATING



### FOR

Freeform gameplay Side-mission depth Best soundtrack

### AGAINST

Fiddly controls Dated graphics It ends

### OVERALL

An over-the-top, violent, hilarious, adventure playground.





Developer: Big Huge Games ■ Publisher: Microsoft ■ Distributor: Microsoft ■ Price: \$99.95 ■ Rating: M15+ ■ Available: Q3 2003

### SYSTEM

### NEED

P4-500 16MB Videocard 128MB RAM 800MB HDD

WANT

512MB RAM 32MB Videocard

MULTIPLAYER

Yes, up to 8 players

### ONLINE

www.monkeyneav

Bring back
Monkey, Pigsy,
Sandy and that girl
who is meant to be
the boy priest,
Tripitaka! And
while we're at it,
we may as well
petition to bring
back Voltron, Astro
Boy, Mysterious
Cities of Gold and
Ulysses 31.
Memories, from
the corners of my
mind...

ttentive reading of press releases about the "genre-crossing" of real time and turn-based strategy in Rise of Nations leads to certain expectations. Maybe your wish is for a streamlined Alpha Centauri, or a deeper, more involving Starcraft. Maybe your wish is for a kind of strategy game where everyone can somehow get along without dropping bombs on their neighbours. Publicity tends to fuel wild speculation, so despite what you read in the previews, Rise of Nations is none of the above. For those expecting a strategy that brings all the threads together and makes the forebears redundant, you're in for a shock - Rise of Nations isn't it. Sometimes the Marketing Hype does the Game a disservice. Notice I didn't claim Rise of Nations is bad. It isn't. Far from it.

At heart, Rise of Nations is a very solid Real Time Strategy game. As a strategy title with the clock on, it has to be. Where it deviates from the standard formula is in its increased "depth". That is, it features the extra detail people generally complain about in an RTS. This extra detail doesn't suit the fast paced strategy action of WarCraft, as it makes the experience more cumbersome – or so the theory goes. What we have are not one or two resources, but six: food, gold, lumber, metal, oil and knowledge. Each of these requires a

### Se up options are extensive, and not all of the game options will appeal, but Rise of Nations is robust enough to played in a number of ways

separate town structure to accumulate (farms, markets, woodcutters' mills, mines, oil wells and universities respectively). These are the only resources you'll need to produce anything in the game.

### **Respect My Borders**

Another nod to turn-based strategy is the inclusion of national borders. The combined area of all of a player's towns forms their territory. This serves a number of purposes in Rise of Nations. Firstly, most structures can only be built in your own territory. Secondly, in tactical terms, enemy troops that aren't accompanied by a support unit take attrition damage whilst on your soil. I guess this clearly differentiates Rise of Nations from other RTS by creating a more realistic approach to action strategy. More than any other point, these design features force the player to think strategically and avoid a lazy tank rush approach.

Discounting scouts and workers, there are normally a dozen unit types in each

Age. In ancient times, these were comprised of foot soldiers, mounted troops, ships and siege weapons. In modern times, troops, armoured vehicles, aircraft and sea vessels. These troops only get one upgrade via research, so we're not looking at a significantly higher number of units compared to a more traditional RTS. Nor are we seeing features that are more involved. There's no more detail than the average RTS, but at the same time, there's certainly no less.

### **Stupid Stupid**

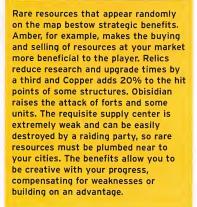
The units are carefully balanced according to their positions on the battlefield, so while Tanks mow down Modern Infantry, Heavy Infantry with Bazookas makes quick work of them. Suffice to say, there is a good balance of units with varied abilities that makes composing an army a satisfying role. That's not to say these are the smartest troops. Even set to Defensive, I had a stray dragoon chase down a fleeing enemy – right into the middle of their











MAKE MINE A RARE



Commerce, Science and Age Advances. Once a level of research is complete, there is an obvious, tangible benefit gained. "Now I can build more towns in my empire", you might say, or, "Now I can establish more trade routes between my cities." Research requires a Library and must be managed like troops and citizens, well, like everything else, really.

forces. Bully for him, he's dead now. Even with auto formations, troops require a good deal of management, lest they walk off a cliff. Nevertheless, it's a game after all; you WANT to be needed, don't you?

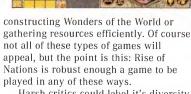
Research is essential and benefits all aspects of your nation. As long as resources are available, there are five types of research that can be initiated at any time. They are Military, Civic,

### **Possibilities**

Rise of Nations is a wonderfully cohesive game, where there's a nice logic to available actions. Simple things like attrition damage, temples expanding borders, trading resources make for a tight game mechanic that is very easy to come to grips with and offers a great deal of mileage. However, all this would be for naught except for the vast array of options available to customise games. This is what elevates Rise of Nations from a gussied up RTS to a versatile game that can be played in any number of different ways.

Set up options are extensive. There's a good range of parameters that can make games combat focused (quick research, high resources) to more town planning focused (Enforced Peace until a certain point in history or time has elapsed). There's the option of nonmilitary victory conditions like





Harsh critics could label it's diversity too light to be truly immersive and they may have a point. However, for once, a game trying to do too many things is its greatest asset. If you choose to play the game differently, you will be able to. I think that's the point. While hardly bridging the gap between RTS and turnbased strategies, Rise of Nations does create an exciting RTS experience with influences from games like Civilisation. Rise of Nations is undeniably a high class product, with a commendable level of variety and replay value.

The publicity department got it wrong in my opinion, but Big Huge Games didn't. This is a subtly different experience and, though perhaps not revolutionary, it shows strategy placed in the furthest corners of the genre isn't really that far apart. I have a feeling if Sid Meier published his original Civilisation in 2003, it would be far more like Rise of Nations than he'd care to admit.

John Dewhurst















FOR

Highly playable Sublime interface Good variety

AGAINST

Not quite better than the best RTS or turnbased strategies

OVERALL

An engaging RTS that doesn't overwhelm with its diverse ontions





Developer: Wolfpack Studios ■ Publisher: En-Tranz ■ Distributor: Take 2 ■ Price: \$89.95 ■ Rating: M15+ ■ Available: Now

### SYSTEM

P3-700 128MB RAM Directx8 1GB HDD

WANT

P4-2GHz+ 512MB RAM

MULTIPLAYER

Yes, it's multiplayer

### ONLINE

http://shadowbane.e n-tranz.com/

Here you can create your own character. I made a Irekei Mage - Bard who is a Ratchaser/ Bloodprophet named Elvis. He's a bit of a.. ahem.. ladies man actually. Ahem.

he world of Shadowbane is a fairly bleak one - even for an MMORPG (not renowned for having happy back-stories). Some time in the distant past, a near apocalyptic event came close to wiping all life on the planet. Whilst some survived the cataclysm, they found themselves cut off from the land of the dead - their souls forever entwined with large magical trees. Whenever one of these survivors meet their fate they wake up soon afterwards under their tree with nothing but a bit of a headache. Towns have been built up around these trees and players must choose one of these towns as their starting point. From there to level 21 it's a simple matter of farming monsters for XP and gold and running on the levelling treadmill. After level 21 it's a whole new ball game as Shadowbane offers up some of the best PvP action to be found in an MMORPG.

Unlike most other massively multiplayer games, Shadowbane doesn't have any quests, instead leaving the player free to hook up with a group and find a nest of monsters to kill. Whilst this approach to the game does

become a little tiresome after a while mindless killing is fine in a shooter, but you really expect a plot in an RPG - it does allow you to level up to level 21 fairly quickly. With diligent effort you should be able to get a character up to 21 in about a week.

OK, by now you're probably wondering what's so special about level 21. For the first 20 levels the player is restricted to the safe areas of the game in which there is no PvP action allowed. At level 21, the player is booted from the safe server and forced to choose a freehold city to make their base. Although these cities do contain better trainers and vendors than the safe cities, freeholds are only a waypoint to the real thrust of the game - guild wars. It is possible to play the game based from a freehold city, but the true nature of Shadowbane becomes apparent when you join a guild and a player city. While most MMORPGs claim players can influence the future of the game world, Shadowbane comes the closest to making this boast true. At higher levels (and with absolutely massive amounts of gold), players

## While most MMORPG's claim players can influence the future of the game world, Shadowbane comes the closest to making this boast come true...

### GROUPING

The only effective way to gain levels in Shadowbane is to find yourself a good group and stick with it. Thankfully, the XP penalties for grouping are really negligible. Each member of the group receives a full allotment of XP rather than a percentage of the total. Each member of a group drops the XP total by a small fraction, so a monster worth 5000 XP to a single player might be worth 4500 XP to each player in a group of 10. Find yourself a good group and a nice hunting ground and you'll be level 21 in no time.

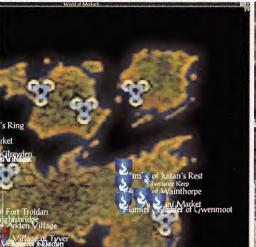
can build their own cities. That's right. Players can actually build their own cities. Hell, you can even lead your people to war against other cities or guilds. There's nothing quite as exhilarating as seeing hundreds of players charge at each other through a breached wall - warriors and barbarians acting as tanks, spell casters providing covering fire and thieves and assassins looking for important or powerful people to kill.

While the concept of Shadowbane and much of the execution is excellent, the game is not without its flaws. Much of the











### **PLAYER INPUT**

Although there are no quests in Shadowbane, players are given the opportunity to create their own content. Aside from guild wars and other high level events, you'll often be invited to join tournaments to see who is the best fighter in the region and the like. These are the only times when PvP is allowed on the safe servers. When a character dies it loses everything they were carrying, only retaining the equipped items. So, always use the bursar to store your money and items before entering a tourney or to go monster hunting, otherwise, you'll be sorry.



a few facts as well. Players are also not privy to what skills their character possesses until after creation. This lack of any real information makes character creation a real hit and miss affair - don't be surprised if you create your dream character only to log into the game and find out it's about as useful as a condom made of gauze.

Thankfully, players have five character

slots available, and any character can be deleted at the whim of the player, freeing up the slot for another character to be made. Shadowbane also alienates new players a little by restricting some races (Minotaur, Centaur and Arcoix) to players who have had active characters for a number of months. Whilst these races are rather powerful, they are neatly balanced with XP penalties. With any luck, the developers will patch the game in the not too distant future, so any player, regardless of time-loyalty, can create a character from one of these three races. After reaching level 10, players need to find a special trainer and promote to a more advanced class. Fighters can become warriors, barbarians, mercenaries and the like. Each of the base classes has their own unique promotion classes although there are some crossovers - both thieves and fighters can become barbarians or both spellcasters and

thieves can become assassins.

This strange execution is prevalent

throughout the game. For the most part, Shadowbane features some excellent third-person control similar to Diablo or Ultima Online. Players move by left clicking on the ground where they want to go and interact by double clicking on an object. Special skills/spells/attacks can be hot-keyed or, alternatively, you can use the powers menu and click on the corresponding button. Virtually, any ingame information you could want from player names to area maps to how many frames per second you're achieving can be found in one of the myriad windows you can open. Unfortunately, there are so many windows it'll take you a long time to remember what each of them is for (if they have any real use at all).

suit with the rest of the game, dishing out the good and bad in nearly equal measure. It's obvious from the beginning that Shadowbane isn't a particularly pretty game - most of the colours are rather dull, the animations are fairly dingy and the textures, even at high resolution look pretty muddy. On the other hand, the engine can support hundreds of players on screen at once with nary a drop in framerate. Although fairly repetitive, Shadowbane features a far better soundtrack and sound effects than most MMORPGs - you're not necessarily going to be ripping the tracks

The spec built Arcane engine follows.

humming along in subconscious fashion.
Though it is currently plagued with
typical MMORPG startup problems - lag,
server crashes, massive patches - if given a
few months to iron out the problems,
Shadowbane has the potential to be a real
player in the MMORPG market.

to MP3, but you'll probably find yourself

**Daniel Wilks** 



FOR

Siege warfare Build your own city Steady framerates

AGAINST

Counter-intuitive Looks dull Server problems

OVERALL

Shadowbane offers up some of the best PvP action this side of a first person shooter.



strange dichotomy first rears its ugly head during character creation. Players are able to choose from a number of races and classes, assign attributes, special abilities and skills, as well as modify the look of their character. Each of the statistics is accompanied by some nicely florid RPG descriptions. It's nice to have a bit of flavour during character creation, but it would be handy if the descriptions actually contained

time, Shadowbane proves to be an

infuriating combination of intuitive

interface and truly obtuse logic. This



Developer: Day of Defeat Team & Valve ■ Publisher: Activision ■ Distributor: Activision ■ Price: \$\$49.95 ■ Rating: M15+ ■ Available: Now



### SYSTEM

NEED P2-450 64MB RAM 640X480 Videocard

533MB WANT

P3-800 128MB RAM 32MB Videocard 512/128 ADSL/Cable

MULTIPLAYER

Yes

### ONLINE

Defeat. It's a harsh word in the cutthroat world of beauty pageantry. n a time of ridiculously one sided wars, it's important for humans, well, gamers at least, to reconnect with days of old when there was actually a chance of losing more than a few journalists on the battlefield. Korea was the last 'real' major war, but it isn't very marketable, so most of us pretend it was part of World War 2. There are now quite a few competing games within this sub genre, with Day of Defeat being both the oldest and the youngest!

Day of Defeat began its' evolution way back in the earliest days of the 21st century as a free mod for Valve's ageless Half-Life engine. It has been through some significant changes in that time finally arriving in its' present 4.0 guise (renamed 1.0) with an already large fan base and lots of servers. Day of Defeat combines the now familiar elements of Counter Strike and Team Fortress into a game that emphasises teamwork and the benefits of being ruthless.

The teams are the Germans, Americans, and the Poms (with an Australian side begging for a local modder?) depending on which map you are playing, there are only ever two teams to each map. As you've probably come to expect from such games, Day of Defeat has a player class system, however, class is determined not by any special abilities but by the sort of weapons you carry. The British, American, and

German teams all get four general types of soldiers: snipers, machine gunners, assault troops and standard infantry.
Unfortunately, the British get only four individual types and, hence, four main weapons, compared with seven types (not including special paratroops) for both the Americans and Germans.

### **Deploy the tripods**

Day of Defeat implements those weapons in an uber realistic way, where behaviour seems to be designed around play balance rather than authenticity, as most of the rifles, for example, have a ridiculously exaggerated amount of recoil. As Terry Pratchet would say, they reached the boundaries of realism and went straight through to the other side. It is this, more than any other factor, which shapes gameplay in DoD. This is not a game where running and gunning is even a desperate option. In fact, if heavy machine gunners want to have any chance of hitting something, they need to hit the deck and deploy their tripods!

As an online only game, DoD needs a lot of flexibility for hosts to customise server settings and to have a variety of game types at their disposal. Sadly, the game currently has only two game types available, Territorial Control and

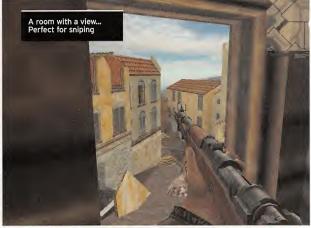
### THE COMPETITION

Technically, Day of Defeat can't compete with newer titles, such as Return to Castle Wolfy or BF 1942, but there is an up side. The low spec Half-Life engine will, by now, run on anything, even one of those Internet fridges, so everyone can join in. If you already own a copy of Half-Life, the download (a whopping 170MB) and playing are free! However, there is a distinct lack of fun tasks like driveable and flyable vehicles. But, hey, it's all about teamwork.

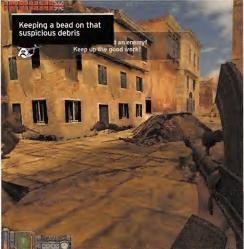
Capture/Destroy. Territorial control maps require you to take and hold a number of flagged objectives around a given map zone. Some flags can be captured by simply running over them while other flags are designated as 'Area Capture' flags, meaning that they can be taken by standing in a specific zone around the flag. Some area capture zones require more than one team member to capture.

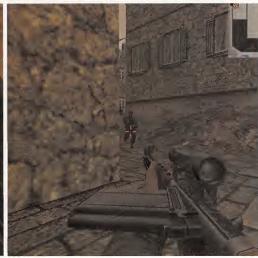
Capture/Destroy maps pit one side against the other in opposite roles. On these maps, the players must complete a specific task, or prevent the other side from completing it, in order to win. Each















team spawns in a specific area and is given instructions on what they need to do. In some cases, both teams will have objectives to complete. What the game really needs, however, is a Delta Force: Black Hawk Down style 'Team King Of The Hill' mode to really give you the feeling of

### **WEAPONS STANCE**

In Day of Defeat, your troopers' firing positions makes a huge difference to the performance of their weapons. Immediately crouching allows the weapons to fire with more accuracy, and lying prone more so. Each weapon has a 'control' rating that tells you the difficulty of handling and fire accuracy. Generally speaking, the more powerful and higher the rate of fire a weapon has, the more uncontrollable it is. There are also weapon pickups for specific tasks on some maps, such as bazookas for destroying tanks.

being in a battle rather than a mission.

However, the maps and the quality of their design is impressive and it is obvious DoD's developers are FPS freaks themselves, having made a big effort to provide maps that are interesting and well balanced. There is also the added kudos of the game's longevity amongst fickle

gamers, despite an aging HL engine, which doesn't look as good as newer models with textures and some edges looking rough. However, in the thick of battle, good cover and a variety of approaches are all you'll have to be worried about!

For those of you interested in testing yourself against the masses, DoD also includes a scoring system to rate players and teams into bums and heroes. Teams gain points for completing all their objectives and individuals get points for being involved in completing that objective. In Territorial Control maps, the team receives one point per flag captured and one point per flag to the individual who touched

it. A team receives 50 points for capturing the entire map. For Capture/Destroy maps, individuals usually receive 10 points per completed objective. Players can also get points for dropping ammo to other players.

Of all the World War 2 action titles currently out there, Day of Defeat offers the fastest paced and most team oriented gameplay. It's support for teamspeak is good, as we were able to understand people whilst using a 56k modem to play, although we couldn't speak ourselves. Its longevity also means that it works very smoothly online. We did notice a few little 'sticky terrain' bugs on a couple of maps, getting impossibly stuck on nothing doesn't do a lot for your combat reputation. Ultimately, however, this is a free game, so who's complaining! Every man and his dog, as the saying goes, has a copy of Half-Life somewhere, so dig it out and start downloading.

**George Soropos** 

### RATING



### FOR

Great atmosphere Easy teamwork DIY game design!

### AGAINST

Looks dated

Not much variety

Exaggerated recoil

### OVERALL

Not quite as much fun as BF 1942, but much cheaper (if you already own Half-Life), and you can't argue with free!





Developer: Terminal Reality ■ Publisher: Majesco ■ Distributor: Vivendi Universal ■ Price: \$89.95 ■ Rating: MA15+ ■ Available: Now

### SYSTEM

NEED

P3-733 128MB RAM 2GB HDD 64MB 3D Videocard

WANT

P3 1GHZ 256MB RAM 2GB HDD 64MB Geforce 4Ti

MULTIPLAYER

NU

ONLINE

Lederhosen is the sort of outfit little boys and old men look cute wearing. but males between the ages of ten and sixty should be no less than three vodeller's octaves away from it. So, if vou're supposed to wear Bloodravne like lederhosen. then good luck to ya, 'cause you're gonna look a fool.

here's an old adage that all you need to make a successful game is to include a couple of vampires and Nazis. Actually, there isn't an old adage saving any such thing - but there should be. How can you go wrong with the mix? Everyone who is not a creepy Eastern European gentlemen convinced he is a direct descendant of Van Helsing loves scantily clad blood-suckers. And there's nobody, apart from a couple of misanthropic malcontents who need to shave their heads and worship a long dead fascist to get laid, that doesn't like taking out a little aggression against the Third Reich. Bloodrayne presents this winning formula - a combination of vampire shenanigans and Nazi killing. Does it equal the sum of its parts? Very nearly, and, in this case, near enough is good enough.

The story for Bloodrayne is a bit of harmless pulp novel style fun - Agent Bloodrayne, a Dhampir (not actually your traditional blood-sucker - the mythology is pretty in-depth, but suffice to say, they are living creatures rather than members of the undead) working for the Brimstone Society, a secret organisation dedicated to protecting the land of the free from supernatural evil. The Brimstone Society is pitted against Colonel Wulf and the GGG - a shadowy Nazi organisation

dedicated to finding supernatural means of aiding the Aryan cause in World War 2 - after a near fatal run-in in Louisiana. Rayne is charged with the task of hunting down the GGG menace, eliminating every single member of the group and finding out what they are up to. Armed with her deadly silver blades, Dhampir powers and whatever guns she can pick up, Rayne must kill a hell of a lot of goose-stepping leather wearing fetish monkeys, monsters and, bizarrely enough, mecha.

### **Cross Head**

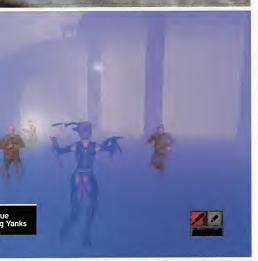
Presented in a third-person perspective, Bloodrayne plays like a cross between the classic games, Max Payne and Oni. Comparisons to the above two games are inevitable as Bloodrayne combines their best aspects and, whilst never truly exceeding its predecessors, does dish up the goods. Control is very simple with the basic WASD for movement, Space for jump, the first mouse button for hand-to-hand attacks and the second mouse button

for guns or special weapons. Hand-to-hand combos are strung together through repeated clicking of the mouse button, but require timing to pull them off properly. This combination of one button attacks and gauging precise combos keep combat interesting, but makes it very accessible. Likewise, gunplay is simple and approachable. As you will quite often be confronted by half a dozen or more enemies at once, the developers have opted for auto targeting.

Both hands can target independently making the gunfights quite hectic and oft-times funny as Rayne's arms jerk around frantically like an epileptic trying to dance the YMCA under a strobe light (apologies to any epileptics or fans of The Village People, but the analogy is quite fitting).

Being rather supernatural in origin, Rayne has access to some special abilities that definitely come into play during the course of the game. The most useful and most obvious power in Rayne's Dhampir arsenal is, of course, the ability to drink

Bloodrayne is a bit of a mixed bag, it does dish up some quite nice looking animations but at a very high demand on your system





### I'LL WEAR YOU LIKE MY LEDERHOSEN

As you would expect from a game of this type, Bloodrayne is full of tough guy (girl) one-liners. Unfortunately, whilst the voice acting is uniformly quite good, the dialogue is, for the most part, terrible and strangely anachronistic. Rayne often sounds more like a modern day crack-whore looking for a trick to pay for her next fix rather than a sassy and sultry 1930s Nazi killing vampire chick. No matter what problems you have with the dialogue, they will all fade into the background when you hear a Nazi Captain tell Rayne he will "wear her like my lederhosen". Now that's some champagne script writing.

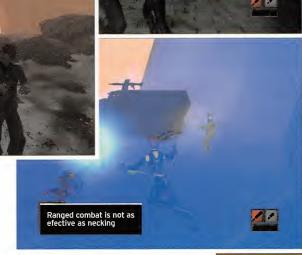
blood. By getting close to an enemy and hitting E. Rayne will launch herself onto the victim's neck, draining their life energy whilst simultaneously restoring hers. As she drinks the blood, players are able to turn the victim using the mouse, making them very effective body shields during that quick health top-up in the middle of combat. When further away from an enemy, hitting E will cause Rayne to use her Harpoon - a blade on a chain used to grapple enemies and drag them in for a little bit of impromptu neck munching

### GGG

The GGG group portrayed in Bloodrayne may have seemed pretty over the top in their antics to save the Aryan war cause by utilising supernatural means, but the fact remains that Hitler did actually sanction the creation and funding of a Nazi research group, dedicated to finding a supernatural way to win the war. Although not much is known about the group it is widely believed that they were actively seeking out the so-called "Spear of Destiny", the spear that the Roman soldier (later to become known as the Wandering Jew in popular myth) plunged into the side of Jesus during his crucifixion. The myths surrounding the spear are attributed to a number of different powers ranging from immortality to the ability to unswervingly command the loyalty of men. Those wacky Nazis.







Unfortunately, blood drinking is a little too powerful for the most part - the basic attack will kill most normal troops whilst replenishing around a quarter of Rayne's health. Whilst the blood drinking doesn't quite break the game it does make it a little too easy to keep Rayne's health fully topped up.

### Cross Head

Throughout the game, Rayne gains access to a number of different vision modes Aura Vision, Dilated senses and Extruded vision. Aura Vision is by far the most useful of the vision modes. When the vision mode is activated the world takes on a bluish hue and Rayne is able to discern the different colour auras of enemies nearby. This in itself is not particularly useful, but the vision mode does come in very handy when figuring out what to do next. As most levels require Rayne to track down and eliminate a number of targets you'll often find yourself wondering where to go. Aura Vision shows a blue glow in the direction in which you are meant to go. getting bigger and brighter the closer you get to the target. Dilated senses is something of a light version of bullettime, allowing the player to slow time for indefinite periods making it easier to dodge bullets and aim. Extruded vision is a zoom mode for sniping, that, whilst kind of cool looking is basically useless. The most fun and impressive looking power in Rayne's arsenal is Rage, a combination of bullet-time and power-up.

Killing enemies fills the rage meter activating the power in combat slows down time and gives Rayne access to far more powerful attacks in hand-to-hand combat. Throughout the game, Rayne will learn more and more powerful moves to add to her Rage combos, so by the end of the game, you'll be carving a bloody swathe through the opposition like a chainsaw through a newborn.

Bloodrayne's graphics engine is a bit of a mixed bag - it does dish up some very nice looking animations and figures, but at a very high demand on your system. You shouldn't even consider trying to turn up the resolution or effects if you're running anything close to the required specs - the test machine, an Athlon 2200+ with 512MB RAM and a Radeon 9000 Pro had difficulty keeping the framerate steady during the busier moments. Although none of the mechanics in Bloodrayne are the least bit original, the developers have succeeded in taking the best parts from a number of other titles, mash them together in the body of a sexy redheaded Dhampir and serve it to the gaming public as a good clean piece of Nazi bashing fun.

**Daniel Wilks** 

### RATING



1

FOR Simple, fun combat

**Drinking blood Nice animations** 

AGAINST

Too easy Too short System hog

OVERALL

Not a classic, but a fun slice of pulp horror action with a sexy vampire sheen



Developer: Eutechnyx ■ Publisher: Empire ■ Distributor: Red Ant ■ Price: \$79.95 ■ Rating: MA15+ ■ Available: Now

### SYSTEM

### NEED

P3-800 128MB RAM GeForce4 MX 750MB HDD

### WANT

P4-1GHZ+ 256MB RAM GeForce 4 Ti4400 1GB HDD

### MULTIPLAYER

Naw

### ONLINE

macktrucks.com

Mack, the original and still the best. Really, really big trucks. Insanely big trucks. All here. Just waiting for you to come with about half a million bucks.

### RATING



### OVERALL

There's not much to it, but it's still a blast. I've got a big truck!

**73** 

et me put my cards on the table here - I love trucks. Big, stinky, loud, difficult to handle and capable of turning six lanes of oncoming traffic into a mass of mangled metal. Think of The Matrix Reloaded and the scene. You know, THE scene.

I've done my time at the arcades on 18 Wheeler and its pretenders and I know what to expect from a trucking game. So, it's pleasing to see that Big Mutha Truckers, despite the low-budget title and Offroad Redneck Racing cachet, knows what it is, knows what it's doing and manages to pull it off.

First up though, this is not a deep gaming experience. It's arcade truck racing plus. All the familiar game modes are there - racing the ubiquitous Rival, performing various missions that are really just checkpoint races, and of course transporting freight.

### Haulin' for profit

Big Mutha Truckers beefs up this slim gameplay model by including a career mode, in which the four children of the eponymous Ma compete to inherit the business by making as much cash as possible in 60 days.

BMT offers a generously sized game world with several cities corresponding to high rise, rural, industrial and Las Vegas style environments. There are no loading times while on the road - the world is seamlessly generated on the fly, although the pop-up of vehicles is often worryingly close.

Making money in career mode is simple enough, driving between the different drop off points while buying and selling various commodities. Like all trading games, some items are worth more in certain locations and it's fairly easy to build up a considerable fortune quite quickly.

However, three computer-controlled opponents - your brothers and sister - are also on the road making cash and it's necessary to stay in the lead if you hope to win the BMT business at the end of 60 days.

### **Road rash**

While trading, Rivals (yes, with a capital R) will occasionally pop up offering cash bets to beat the you to specific locations. Fortunately, not only can you specify the target location but also skip the race if desired.

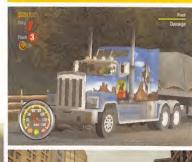
Meanwhile, in the local bars and taverns, tips and the occasional mission can be picked up. As mentioned above, the missions are really just checkpoint races but they are dressed up to provide a semblance of variety, ranging from protecting a friend's reputation by knocking down every newspaper vending machine in town to smashing fifteen cars as quickly as possible.

And that's about it. It's no serious challenger to GTA3, but the high-detailed load-free world, the fender-bending action seen from the cab of a massive rig and the cheesy backstory (Ma even threatens you with a 12-gauge on one occasion) means Big Mutha Truckers sure is an entertaining game. And speaking of cheese, you'll have to excuse me, Capital City needs fifty tonnes of the stuff pronto!

**Anthony Fordham** 

### **REDNECK RAMPAGE**

Why spend weeks developing interesting and well-rounded trucking characters when you can bust out a posse of traditional redneck stereotypes in a mere fraction of the time? Rawkus is the ladykiller with silver teeth, Earl is the stinky fat guy, Cletus is thin, creepy and toothless, Bobby-Sue has enormous comical breasts and Ma is a toad creature from beyond the black swamp. And yet, familiar as the archetypes are, they do put you in a great mood for some trucking and help generate a healthy level of disrespect for other road users.





Never let your dog a the wheel, it's just common sense



Developer: PopTop Software ■ Publisher: Gathering of Developers ■ Distributor: Take 2 Interactive ■ Price: \$89.95 ■ Rating: G8+ ■ Available: Now

he original Tropico was something of a sleeper hit - gamers from around the world enjoyed the challenge of building and maintaining a fictional South American society. The game was filled with humour and easily accessible (though somewhat fiddly) micromanagement, but unfortunately the overall simplicity of the concept and limited content made the game rather dull after anything more than a few weeks of playing. In Tropico's second outing, the quasi-real-world modern day setting has been done away with for a far more interesting and flavoursome pirate romp. Like last month's Port Royale, Tropico 2 charges the player with building and maintaining a successful pirate hideout, but offers far more in the way of micromanagement and overall gameplay choices. Balancing the rough and ready needs of seedy privateers with the delicate sensibilities of slaves may sound easy on paper, but it can be a real challenge to all but the most scurvy of sea devils (whatever the hell that means). Through either a singleplayer campaign or sandbox mode. players must pit their wits against the environment, the great seafaring nations and their less than savoury underlings to see if they have what it takes to be a pirate king.

Being the leader of a pirate community may sound like a fun way to spend your holidays, but unless you have a strong stomach and some serious moral ambiguity, then it may not be the job for you. Keeping pirates happy is a fairly straightforward affair - they like to kill, loot, plunder, drink, gamble, wench and basically behave anarchically. On the other hand, prisoners prefer food, religion and order to keep them in line. If pirates get too dissatisfied with the way of life on your island, they'll simply revolt and attack the nearest loyal pirate. Usually this ends with one party dead and the other satisfied with a bit of bloodshed.

### **ALLIES**

Although it may be tempting to sail the seas and throw caution to the wind by attacking any vessel that dares enter your waters, it's a far wiser plan to form an alliance with one of the great seafaring nations. In the game, alliances mean the country will not attack your fleet (unless seriously provoked), will help fund some of your activities and may even aid you against a common enemy. Aside from the obvious benefits, there is one other great advantage of having a patron - you can call yourself a privateer to the Crown instead of just a plain old pirate. Doesn't it sound so much more socially acceptable?

but if too many pirates become angry, you could have a full scale revolt on your hands. When slaves become unhappy, they don't work as effectively and spend the majority of their time trying to escape - if too many survive it's time for an insurrection. The balance between the two sides of the workforce makes up the majority of Tropico 2's micromanagement - building gambling dens and brothels to keep pirates happy, temples and prisons to keep slaves in line and farms to keep them all fed. A pirate ain't



much good (or happy) without a ship, so the rest of the game is taken up with building boats and raiding. Although the player cannot directly control and naval combat, they can set the aggressiveness level of the pirates to make combat easier for lesser rewards or the rewards greater for greater risk. Aside from money, raiding is also the only way to get slaves.

However, Tropico 2 is not without its problems. Unless players are familiar with the original, they may have a hard time wading through the amount of on-screen information to work out what they have to do. Thankfully, Tropico 2 feature a lot more depth than its predecessor, so after you've finished the campaign, you can design your own island, build your fortunes and rove the sea for plunder.

**Daniel Wilks** 



### SYSTEM

### NEED

P3-500 64MB RAM 16MB Videocard 1.8GB HDD

### WANT

P4-2GHZ+ 256MB RAM 64MB Videocard 1.8GB HDD

### MULTIPLAYER

No

### ONLINE

We couldn't find any references to One Eyed Willy, the evil pirate who sailed to the US and died a paranoid death amongst all his wealth.

### RATING



### OVERALL

Come on, who doesn't love pirates?

**72** 



Developer: Genepool ■ Publisher: Activision ■ Distributor: Activision ■ Price: \$89.95 ■ Rating: M15+ ■ Available: Now

### SYSTEM

NEED 128MB RAM 32MB 3D Videocard 1.5GB HDD

### WANT

P4-1GHz+ 256MB RAM 64MB 3D Videocard 1.5GB HDD

### MULTIPLAYER

ONLINE

Read about the band who's name is more than a homage to the hairy



Not the worst superhero game, but unless you're

eing a close to invulnerable killing machine with an unbreakable skeleton and claws that can cut through anything, Wolvie doesn't take the subtle approach - it's killing time.

Sound's good doesn't it? Lots of action with the world's most popular X-Man. Unfortunately, everything after the intro reeks of being a third rate port of a second rate game. Everything about Wolverine's Revenge points to a rushed development pushed to coincide with the release of the second X-Men film. Aside from Professor X being voiced by the film actor (Patrick Stewart), there is little to connect the game to the film. Given a little more development time, Wolverine's Revenge could have been an action packed third person fighting game. Unfortunately, what we end up with is something far far less.

Wolverine's Revenge is all about getting up close and personal and perforating enemies with Wolverine's claws. You'd expect a game such as this to have a rather comprehensive fighting system full of combos, but players are given access to two attack buttons - kick and punch - continuously bashing one of both of these buttons strings combos together. It's as simple as that. Occasionally, during a fight, "Strike" will appear on screen. At this time, you can hit the action button and Wolverine will unleash one of his special moves. Although these moves do look great, the fact they can be pulled off by simply hitting the right button at the right time makes them a little dull after the first go. Combat is simply a matter of waiting for the opportunity to hit the action button kind of like Whack-a-Mole without the luxury of any prizes at the end. Aside from claws and crankiness, Wolverine has access to a few more powers to aid him

in his quest - regeneration and heightened senses. When Wolverine sheathes his claws his health will start to regenerate, allowing the Canadian mutant to heal up between battles. Whilst this sounds good in practice it's only useable half of the time - most boss battles and some levels stop you from healing at all. This would be fair enough, but the only time when the power is available to you, you don't really need it, as the basic enemies are horribly

inaccurate and far too simple to kill without taking damage.

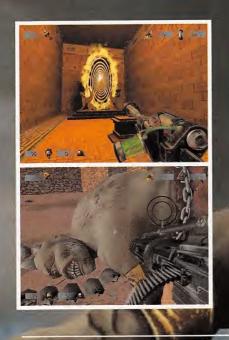
Although Wolverine's Revenge gives PC players the chance to use a mouse and keyboard control configuration, you shouldn't bother, as the mouse is so unresponsive and laggy making the game nearly unplayable. It's also possible to play using only the keyboard, but the number of keys needed far outnumbers the number of fingers available to anyone living outside of a nuclear disaster area. The only viable option is to use a gamepad and deal with most of the buttons sometimes failing to perform the task they're allotted. This is not the only evidence of the shoddy nature of the port. Nothing in Wolverine's Revenge takes advantage of the advanced system specifications of the PC. Instead of being able to save at any time during the action, players are locked into save points. Alas, these save points only appear at the end of a level, so you'll find yourself playing through the same level time and time again before you get a chance to save. This wouldn't be so bad if the levels were well designed - but unfortunately, they all





follow roughly the same pattern - lots of guys to kill and vice versa because the controls aren't sensitive enough to get out of the way in time.

**Daniel Wilks** 





### Will Rock

Never has a question been so easily answered: No

Developer: Sabre ■ Publisher: Ubi Soft ■ Distributor: Ubi Soft ■ Price: \$49.95 ■ Rating: MA15+ ■ Available: Now

here are too many games on the market today that just make you ask "why?" Why do this thing? Why create Will Rock, a derivation of a derivation, an unoriginal, tiresome and, at times, boring shadow of the uneven design of Serious Sam? For this is a game simply not worth having - you've seen it all before, the graphics, the enemies, the weapons, even the smart-alec wisecracks. The best way to review Will Rock is to list the thievery that went into its design.

### Aliens ate my brain!

First up is Serious Sam, of course, a game that strove to return to the "good old days" of Doom, with hundreds of enemies on the screen at once instead of just three. Unfortunately, like Serious Sam, Will Rock failed to realise that Doom's strength was not sheer numbers, but exquisite level design. Big flat arenas do for not an exciting battle make, but a bloody boring battle is what they make where every warp-in of new enemies is greeted by a groan.

Next, there's Duke Nukem. Like Duke, Will Rock tries to create a sense of character around the player with a bunch of dumb wisecracks and not much else. When attacked by a skeleton warrior, "Ma, is that you?" When attacked by vultures, "Here birdy birdy!" Here birdy birdy? What the hell is that? Duke was a gun-toting merc and even he was over the top sometimes, but Will is supposed to be an archaeology student, so his tough-guy nature always comes across as a put-on. This naturally brings us to:

### Nazis ate my brain!

Indiana Jones. Will Rock's most poorly integrated influence is our man Indy, starting with the ill-conceived archaeology thing (the professor and the cute daughter have been kidnapped by mummies!) and ending somewhere around the fifth swinging blade run-fast-then-run-slow puzzle. Indy's



pre-World War 2 setting allowed for some truly defining adventure moments, but Will Rock is a contemporary guy, so there aren't even any Nazis pulling the strings!

Finally, there's Ulyssess 31. If you never had the pleasure of watching this seminal late afternoon cartoon sci-fi slash Greek mythology romp, you missed out. Especially on Nono, he's a small robot you know. Sure, Will Rock has nothing to do with Ulysses and isn't set in the future or space but it does try to rope in a bunch of Greek mythology, presumably by doing a find and replace on all of Serious Sam's Egyptian textures. Curiously enough, diligent Internet research reveals Ulysses 31 to have been made by THE FRENCH! Coincidence?

### Franco-Greeks ate my brain!

But back to Serious Sam. Seriously, Will Rock is exactly the same game. It's like the promised Greek episode that never made it into Croteam's opus. I truly wish I could say something positive about how it adds new concepts to the mayhem, but it doesn't. The

And don't get us started on teh soundtrack.... game focuses entirely on small graphical

tricks like shattering glass and particle effects in the hope they will somehow believe they will somehow be ampletely uninspired gameplay. Don't buy

completely uninspired gameplay. Don't buy this game. It's pointless.

**Anthony Fordham** 

### SCHLOCK FICTION

There are two ways to write a pointless backstory for a run-and-gun FPS. First, you can come up with a scenario where a galactic overlord called Furious Mental threatens the earth and you have to go back in time to defeat him, which is stupid enough to be fun. Or you can do what Will Rock did, concoct an overly detailed pile of drivel about exiled Greek

gods and an archaeology
student getting possessed
by Prometheus and come
out sounding like a
complete twat. It's
not a rip off of Indiana
Jones, it's a rip off of
that crappy Indiana Jones
rip off with Sharon Stone in it

### SYSTEM

### NEED

P3-500 64MB RAM GeForce2 700MB HDD

### WANT

P3-1GHz+ 128MB RAM GeForce4 MX 750MB HDD

### MULTIPLAYER

No. I mean Yes.

### ONLINE

Because what the world needs now is a website dedicated to Greek Rock 'n' Roll. I can't read any of the content on this site because it's all... oh, never mind.

### RATING



### **OVERALL**

Of all the FPSs in the world to rip off, why the hell would you choose Serious Sam?

48

Intel

### **1865** Springdale

W ith the release of Intel's latest chipsets for the mainstream Pentium 4 platform today we take a look at the Springdale compared to its bigger brother, the Intel I875P Canterwood

Just on 1 month ago, Intel made its biggest leap forward for its Pentium 4 series with the introduction of the I875P chipset supporting 800MHz FSB and the 800MHz Pentium 4 processor. Intel 1875P, better known to the hardware market as the Canterwood not only brought the first official 800MHz FSB, but also brought to market the first Southbridge with integrated Serial ATA on the ICH5 and RAID support on the ICH5R. Alongside this, Intel brought its first DDR-400 memory controller supporting Dual Channel 128-bit memory interface supporting a maximum 6.4GB/s bandwidth, the same bandwidth the Pentium 4 800MHz FSB is capable of generating.

Another feature was the Intel Performance Acceleration Technology (PAT). This technology is designed to accelerate memory access by the CPU, bypassing certain memory wait states, but running this requires great frequency memory modules. The use of ECC modules is also supported to allow greater stability with PAT enabled.

Intel, not wanting to loose out to others like SiS with upcoming chipsets costing far less and VIA's free access to the Intel Pentium 4 architecture to build chipsets, had to come up with a cheaper alternative. This pushed Intel in releasing the 1865 series of chipsets, codenamed Springdale. Springdale has 3 variations, 1865P, 1865PE and 1865G. This month, we will look at all the common features and different variations in the chipsets.

### 1865P, Value at its best

By far, the 1865P chipset is the cheapest variation. Costing \$US33 per 1000 units, this is the ultimate in cheap chipsets. The I865P only supports the 400/533FSB processors and is designed to replace the I845 series of chipsets and compete with the SiS 655 chipset. While having the Dual Channel DDR controller, this chipset only supports DDR-266 or DDR-333 memory modules. Intel only allows 400MHz DDR on 800MHz FSB boards, so this one misses out. Another of the major features Intel is the CSA interface, which allows for the inclusion of the CSA Gigabit Ethernet controller.

### **Mainstream chipset**

The I865PE chipset is truly the mainstream choice. Supporting the 800MHz FSB allows you to use the latest Intel Pentium 4 processors at

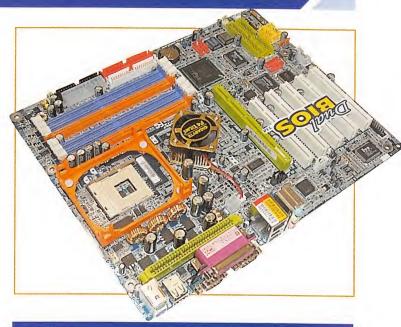
a cost of \$US36 per 1000 units. Dual Channel DDR-400 is supported on the PE, which gives you a maximum bandwidth of 6.4GB/s. CSA on the 865PE allows the CSA Gigabit Ethernet controller create an affordable Gigabit Ethernet. These are all the major features seen on the Canterwood with the exception of missing PAT and support for ECC memory. This points to Intel moving the 1865PE away from the server and workstation market and towards mainstream desktop users, unlike the 1875P.

### Intel Extreme Graphics 2

Intel has of late been aiming at least one of their chipsets at the integrated desktop market for OEMs, such as IBM, Compaq and HP. The I865G is that exact chip. Costing \$US41 per 1000 units, this chip is the most expensive in the Springdale line.

Designed by using the same features as the I865PE, such as DDR-400 memory and 800MHz FSB, the 865G supports Intel's Extreme Graphics 2. This is the same Graphics core used in the I845GE chipset. While this graphics was faster than the original I845G graphics core, its even value was still very poor. Xabre costs almost the same as the graphics core in the 1865G, yet has more power than Intel's offerings. Intel has no plans to upgrade its graphics core until 1877 and beyond, so if you plan to use the graphics on the 865G expect to have a performance hit.

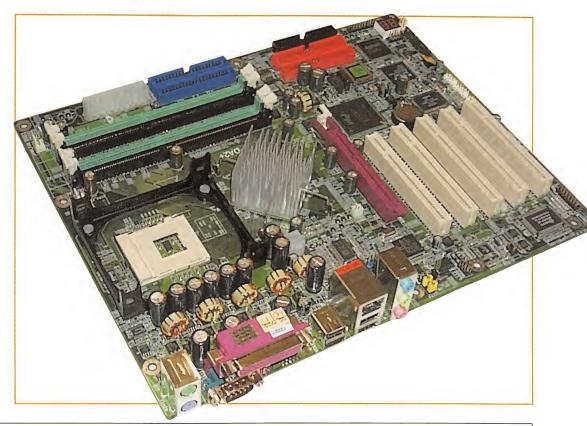
**Cameron Johnson** 



### **DESIGN WISE**

The Springdale chipset happens to be one of those value designs that in all honesty, should be sitting at the top of the Intel pyramid. While it's designed to be economicly viable, its performance is almost identical to the I875P Canterwood chipset, not to mention its full support for DDR-400 memory and compatibility with ICH5R. We searched high and low, and we were hard pressed to find any

complaints with this amazing chipset. In the past, Intel has been criticized for not adding key elements to its new chipsets, but this time everything we could have asked for is included, along with a few well appreciated extras. Of course this makes us wonder if the Canterwood will be the performance champion amongst chipsets, or will it be surpassed by the much more affordable Springdale?



### **EPoX**

### **EPOX 4PDA2+**

### ■ Price: \$300 ■ Distributor: Westan ■ URL: www.westan.com.au

**S** o far, EPoX has successfully pushed the territorial boundaries with its motherboards, trying to join the largest makers of motherboards, such as ABIT and ASUS. EPoX uses a standard full sized ATX board based on a four layer PCB to reduce the costs to the end user. One AGP slots supporting 4x and 8x, as well as five PCI slots sees to all your expansion needs. This variation uses the 865PE chipset, giving it an 800MHz front side bus and

Dual Channel DDR-400 memory support, which is indicated by the colour coded ICH5R. This Southbridge supplies RAID support for the Serial ATA ports, a surprising inclusion on a lower end motherboard. Parallel ATA RAID is provided by the Highpoint 372N controller, while a secondary Serial ATA RAID controller in the Silicon Image SATA link controller gives a total of four onboard Serial ATA ports.

Cameron Johnson



### **PCPP** Score

The EPoX 4PDA2+ supplies all you could ask for from a Canterwood board, at a very reasonable price.

76

### Gigabyte

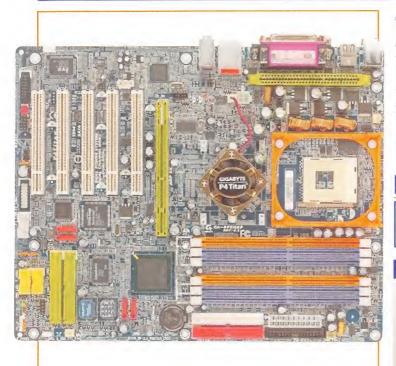
00000 625

1250

1875

### **Gigabyte 8PENXP**

■ Price: \$330 ■ Distributor: Synnex ■ URL: www.synnex.com.au



3DMarkO3 1024x768

EPoX 4877

Gigabyte 4880

4375

The 8PENXP is also based on the 1865PE chipset and thus also includes Dual Channel DDR-400 memory, AGP 8x support and the new CSA networking system. Using a full ATX four layer PCB, the costs are reduced over regular six layer boards. Like EPoX, this board features one AGP slot and five PCI slots, however, there is an AGP Pro slot for server and workstation AGP graphics cards,

allowing AGP PRO cards to receive the necessary power.

ICH5R is also included, allowing you to RAID the two Intel Serial ATA controllers, and once again the Silicon Image SATA link controller is included to give two extra Serial ATA ports with RAID functionality. A GigaRAID IDE RAID controller is supplied for Parallel ATA, giving this board even more RAID

**Cameron Johnson** 

### **PCPP Score**

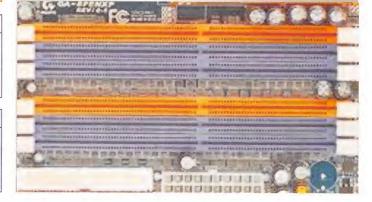
Of the two boards tested, we chose Gigabyte for its practicality and boldness.

81

### **CHOKKAS FULL OF THE GOOD STUFF**

Designed for maximum compatibility and upgradeability the 8EPNXP is definitely one of the most feature packed Springdale boards on the market. However, we did find a few problems with the board itself.

First, the placement of the 4 pin power connector is slightly off. Second no Serial ATA RAID on the ICH5, while not a major concern, would have been nice. Finally the limiting voltage options make this board unfriendly to overclocking.



### Intel

### Pentium 4 2.8GHz (800MHz FSB)

### ■ Price: \$495 ■ Distributor: Altech ■ URL: www.altech.com.au

f you're a PC enthusiast you've probably got a hard on for anything and everything Intel related. Thanks to its new 800MHz front side bus processors, Intel has once again lengthened its lead over AMD in the performance arena. When these new processors are combined with the latest chipsets from Intel, the end result is nothing less than a ninja PC. Thanks to the new FSB, you are now able to eliminate some of the current bottlenecks that have been holding back the enthusiast computer user.

Memory bandwidth has been limited by the older front side bus and with the release of PC3200, otherwise known as DDR400, this memory speed has been a pointless purchase. Until now, that is. These new processors also include Intel's cool Hyper Threading technology, which until recently was a feature only available on the 3.06GHz (533FSB) processor. Hyper threading gives you two virtual

processors instead of the one, which gives you the ability to multitask more effectively. This is achieved by utilizing unused resources within the CPU much more efficiently.

If you are interested in overclocking the new processors - or the C Processors as they are now referred to - you're going to be a very happy chappy. At the moment, the 2.8GHz model is widely known for hitting front side buses of 1000MHz and giving a clock speed of over 3.6GHz. When this is teamed up with the latest motherboard, memory type and videocards, you'll be using a system that most consumers won't see until the end of the year. Intel has been able to outdo them selves again, with the processor available in a number of clock speeds ranging from 2.4GHz to 3.2GHz, with the lower end CPUs having very reasonable pricing. If you have overclocking in mind, you're probably better off sticking with the 2.6C, which will overclock to around the same speed, at a lower price.

Shawn Baker



3DMa	rk03							
Pentiu	m 4 2.80	Hz (800	SB)			6471		
Pentiu	m 4 2.80	Hz @ 3.6	GHz (100	OFSB)		-	7651	
0000	1000	2000	3000	4000	5000	6000	7000	8000

### **PCPP Score**

A relatively nicely priced CPU, with the potential to be overclocked to super silly speeds.

85

### Soltek

### SL-KT400A-L

### ■ Price: \$154 ■ Distributor: Altech ■ URL: www.altech.com.au

n the past, all of VIA's competitors such as SiS, ALI and nVIDIA had problems keeping up with them. However, this all came to a halt when VIA was involved in a lawsuit over the P4X chipset and, unfortunately, much of VIA's time was spent in court. So, now we have the Soltek board, which offers as many features as possible, but due to limiting factors found in the KT400A chipset, lacks a lot of the features found on the nForce2. One missing feature is the Dual Channel DDR Memory support, which theoretically works by combining two sticks of bandwidth together and, thus, doubling its performance. However, the Soltek board also includes support for the Athlon XP processors up to 333MHz front side bus. It is definitely worth noting the new 400MHz front side bus processors will not work. Other features also include AGP 8X and memory support up to DDR 400. One of the first things you notice on this board is the very cool purple PCB,

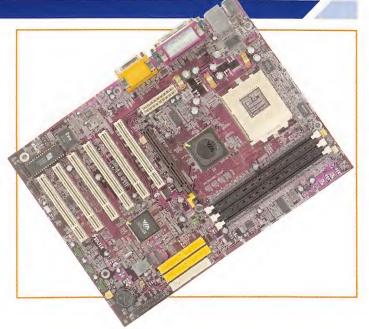
and while it makes absolutely no difference in the way the board runs, it can add a little character to your case if you're into the case modding scene. The Soltek board also has an AGP clip that helps hold your videocard in place, which may help some people more than others. Onboard 6 Channel audio is offered, but if you are a user of a 5.1 setup, it is recommended you don't use the onboard sound, as it cannot be compared to the quality of a separate PCI soundcard, such as the SoundBlaster range. Using the AMI BIOS isn't as user friendly as other BIOS versions we've used, and involves hunting around a bit more to find certain options. However, some people may only use the BIOS for tweaking options and will otherwise not enter the BIOS. The SL-KT400A-L model offers an integrated LAN controller and if you don't mind using onboard LAN this is a good option, as it gives you an integrated, out of the way option, leaving you with a spare PCI slot

**Shawn Baker** 

### PCPP Score

The board offers as much as possible, but is limited by the chipset design. nForce2 is a better purchase at the moment.

67



Quak	e 3							
SL-KT	400A-L	255.1	Frames	Per Seco	nd			
MSI-K	T4-Ultra	268	.7 Frames	Per Sec	ond			
000	50	100	150	200	250	300	350	400

Hercules

Discover the latest and greatest real-time 3D effects!

### **Antialiasing**





### Pixel Shaders





Displacement Mapping





WITH

**Translucidity** 





**Ghost Shader effect** 



### PROPHET 9800 PR

### More potent and faster: can you master its power?

- The ultimate fragging device for extremely high framerates in 3D games: the fastest 3D engine on earth with 380MHz core and 340 MHz DDR RAM frequencies
- Future-proof 3D architecture: Microsoft's DirectX 9 platform for increased speed in future games
- AGP 8X/4X/2X: the highest standard available
- · Hercules' know-how in innovative design
- · Copper cooling system: high thermal conductivity for optimized clocks settings
- Heatsinks on the RAM, on the back of the VPU (Visual Processing Unit) and even on voltage controllers to stabilize the design even at high clock speeds
- Silent cooling fan (< 28 dB) and very trendy look (blue LED)





Sydney: 02 96480888 Melbourn: 03 9646 4388 Brisbane: 07 3852 5288







© 2002 Red Storm Entertainment, Inc. Red Storm and Red Storm Entertainment are trademarks of Red Storm Entertainment, Inc. Rainbow Six is a trademark of Red Storm Entertainment, Inc. Rainbow Six Raven Shield is a trademark under registration by Ubi Soft Entertainment, Inc. Red Storm Entertainment, Inc. is a Ubi Soft Entertainment company All Rights Reserved.

www.hercules.com

News, Forum, Driver Updates, Product Info..

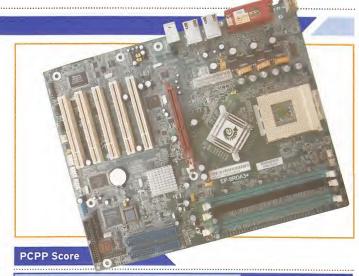
### EPoX 8RDA3+

### ■ Price: \$275 ■ Distributor: EPoX ■ URL: www.epox.com

The nForce2 chipset offers support for Dual Channel DDR memory, supporting up to a 400MHz front side bus and the fastest chipset for AMD on the block, and when combined with two 256 PC-3200 modules you have a very fast and stable set up. The EPoX board has a nice lay out and the ram slots that need to run in Dual Channel mode are highlighted. EPoX also offers is the Dual LAN, which will be handy for those who run an ADSL modem through their computer and also want to place it on a network. You can also bridge the cards together to

form double the bandwidth, which is definitely a handy feature even for people who are currently not using the second LAN port, but may need one in the future. EPoX has also thrown in some rounded IDE cables. Moving into the BIOS we are greeted by our favourite menu, allowing us see what the frequency and voltage adjustments are for the mainboard clearly and easily. Depending on your processor, you should be able to reach its maximum potential and get the most out of the nForce2 chipset.

Shawn Baker



Perfect for people who want to get maximum ability out of their AMD setup.

82

### 3DMark01

EPoX 8	RDA3+			· ·	الخناف		16	5554
MSI KT	4 Ultra			-			15737	
00000	200	400	600	800	1000	1200	1400	1600

### TwinMos

### 2 X PC3200 CL2.5 256MB DDR DIMM

### ■ Price: \$120 ■ Distributor: TwinMos ■ URL: www.twinmos.com

Channel mode, we where able to achieve a very good result as far as frames per second was concerned, while the score difference was only minimal. Unfortunately the TwinMos modules will be difficult to hunt down in Australia. The maximum front side bus we could achieve on the two TwinMos modules was 219MHz when using the most aggressive timings, and if you wanted to drop the CAS

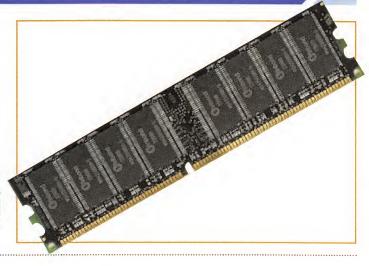
latency down, you shouldn't have a problem running a few more MHz at a faster speed. We were pleasantly surprised to witness the modules run so far above their spec without any problems. TwinMos have made a very good module and there is no doubt they will continue to make excellent memory. Considering they are able to achieve these results without a heat spreader this memory is amazing, and the addition of one might just give you a few extra MHz.

Shawn Baker

PCPP Score

nForce 2 on a Budget

75



### Mushkin

### 2 X Level II PC3200 CL2.5 256MB DDR DIMM

### ■ Price: \$130 ■ Distributor: Mushkin ■ URL: www.mushkin.com

The PC3200 can be used with the new Canterwood and Springdale mainboards that are currently on the market, and we intend to see if its devilish looks carry over to its performance. This module, like the TwinMos, is only rated at CAS 2.5, so we ran it at that. The manufacturer claims we can run both sticks at CAS 2, if they are

capable, but we were unsure, so we simply left it at its stock setting. At the end of the day, the Mushkin was slightly quicker, and getting a hold of the modules shouldn't be a problem as you can order direct from the manufacturer's website. High speed memory comes more into play when overclocking and, like the TwinMos, we were able to get a 219MHz front side bus with aggressive timings.

Shawn Baker

### PCPP Score

Fast memory and a good price, what more could you ask for?

86



3DMark01							
Mushkin						- 1	239.2
Twinmos					<u> </u>	23	5.6
00000 25	50	75	100	125	150	175	200



### Set your sights on better sound

The Metallic Silver JBL Creature 3 piece speaker system includes two desktop speakers and a subwoofer. Both speakers and the subwoofer are magnetically shielded to provide the greatest protection against image distortion on a computer monitor.

The JBL Creature comes with unique "capacitance touch" volume control buttons on the right satellite.

Both satellites also have down firing green LEDs for a cool desktop look in minimum lighting environments.



creature

self powered satellite speakers and subwoofer

### COMPATIBILITY:



### PC: All Models

### SYSTEM:

Input Impedence:
>5K
Signal-to-Noise:
>80dB
Frequency Response:
50 - 20kHz
Input Sensitivity:
400 mv rms for rated power output
Voltage Input:
120VAC



PC Laptop: All Models

### SUBWOOFER:

Drivers:
One 4.00 inch Magnum transducer
Power:
24 watts at 10% (THD+N)
Crossover Frequency:
180Hz
Dimensions:
Width: 9.0 inches Depth: 9.0 inches
Height: 9.0 inches



Apple:
All Mac models
equipped w/
headphone jack

### SATELLITE:

Drivers:
One Odyssey Plus transducer
Power:
8 watts per satellite at 10% (THD+N)
Dimensions:
Width: 3.0 inches Depth: 3.0 inches
Height: 3.0 inches



Portable Audio:

mp3 players, discmans and walkmans equipped w/headphone jack

For information on please contact:



www.conexus.com.au Ph 02 9975 2799 Fax: 02 9975 2966

### Apple

### **iPod 30GB Generation 3**

### ■ Price: \$999 ■ Distributor: Apple ■ URL: www.apple.com.au

We're inclined to come right out and say the iPod is the best hard drive-based MP3 recorder in the business, and this new iteration of the iPod serves to reinforce that.

We were hoping for this generation to include a 40GB model, but, alas, 30GB is as big as it gets (15GB and 10GB versions are also available). However, this does allow for 7500 songs encoded at a fairly decent 160kbps, which will sound as good as CD when played through earphones.

The sleeker new iPod has removed the sharp top edge that used to gouge the user's thigh while in the pants pocket, and there are no mechanical buttons at all - everything is now done through capacitance touch zones.

The four control buttons - play/pause, menu, forward and back - are still there along with the famous jog pad and enter button, but the ergonomically inspired annular model of the previous iPod has been abandoned in favour of putting the four buttons in a row under the display. This makes the device slightly more awkward to use, although it's still a breeze compared to everything else on the market.

The interface has been updated slightly and now includes a couple of

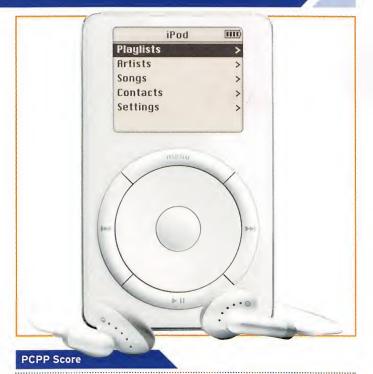
nothing games - Parachute and Solitaire as well as Brick from the previous generation - as well as contact and calendar functions.

Apple makes a big deal of the On the Go playlist function, where the user can drop songs into a playlist while on the road. Unfortunately this function is little more than a gimmick as you can only have one On the Go playlist and it gets deleted every time you attach to a PC, so you can't save the playlist when you get home.

The iPod also now includes a dock, which makes it faster to connect - no more fiddling with the flap covering the FireWire port. Unfortunately, ultimately the dock reduces the connectivity of the device as you can only use Apple's bespoke FireWire cable and you need to swap it between PC and power supply to charge - you can't buy a second ordinary FireWire cable for charging, and you still can't use the iPod while it's plugged into a PC.

If you don't already own an iPod rush out and buy one now - they really are amazingly solid machines. If you have a Generation 2 pod, don't bother upgrading unless you're struggling with 5GB, the improvements in the new model aren't that significant.

**Anthony Fordham** 



Still the best HDD MP3 player on the market, but improvements over the earlier model aren't that significant, except for the new 30GB capacity.

89

### ThermalTake

### SubZero4G (Intel version)

### ■ **Price:** \$279 ■ **Distributor:** PC Case Gear ■ **URL:** www.pccasegear.com.au

his is the first heatsink fan we've reviewed that costs nearly \$300. That's because the SubZero4G is a hitech peltier cooler that uses a microprocessor to control the flow of current through a thermal plate which in turn carries heat away from the CPU.A homemade peltier or thermalelectric solution can do some serious cooling, and a common problem is that the cooler will in fact work too well, chilling the CPU to such a degree (no pun intended) that condensation may form - which is a bad thing. It's fortunate then that hypercooling is not a problem you're going to have to face with the SubZero4G because, unfortunately, it doesn't cool a CPU very well. This professionally designed peltier kit is complicated and requires an extra power point. The rather attractive gold orange and blue heatsink fan and thermal unit combo squats on your Socket 478 P4 and sprouts a huge number of wires which in turn connect to a large PCI card, which contains the afore mentioned

microprocessor that keeps an eye on temperature and regulates fan speed and current flow accordingly. On our P4 3.06GHz the SubZero4G only managed to maintain a temperature of 42 degrees - actually higher than the stock P4 cooler's 36. However, that was while writing this review and browsing the web. In the middle of a UT2K bombing run, this 'cooler' allowed the CPU to heat to an unacceptable 77 degrees, resulting in dropped frames and choppy play. It's odd because the lower-clocked CPUs, where this cooler works okay, don't really need it. As soon as you buy or overclock beyond 2.8GHz, the SubZero4G is in serious trouble. At the end of the day what we're looking at here is a novelty product that has plenty of cool factor, but ironically no ability to cool. It's cool, but it's too hot, you see? Anyway, this is a quiet cooler to be sure, but since your CPU is quietly baking to death, you seriously need to look elsewhere

Anthony Fordham

# And the state of t

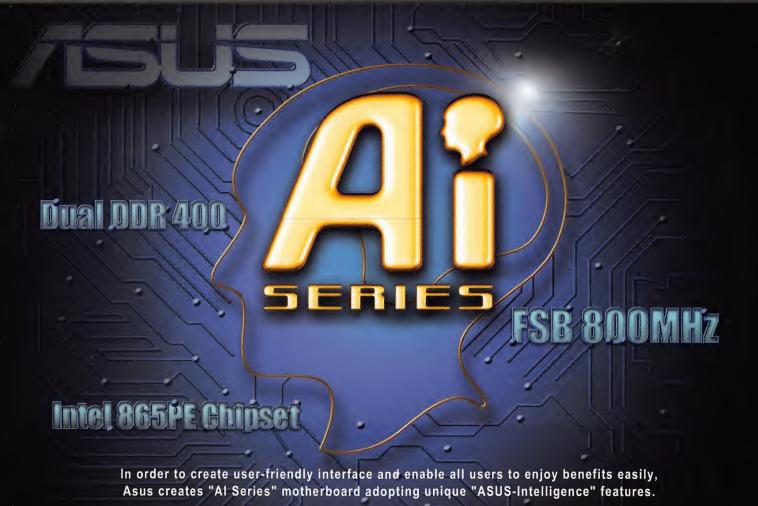
# Pentium4 3.06GHz - Soltek Springdale motherboard (degrees) IDLE P4 cooler 36 SubZero4G 42 LOAD P4 cooler 52 SubZero4G 77 00000 625 1250 1875 2500 3125 3750 4375 5000

### **PCPP Score**

Expensive and virtually silent, this is a groovy looking product indeed. Shame then that if you play games, it doesn't actually work.

49

### **ASUS Intelligence Everywhere**



- Al Audio: Intelligent Audio-Sensing Technology
- Al Net: Intelligent Net-Diagnosing Utility
- Al Overclocking: Intelligent CPU Frequency Tuner
- Al BIOS: Intelligent Auto-Recovered BIOS and More

### Motherboard



### PUPSO0 Deluxe



### P4P800 Deluxe

- Intel 865PE + ICH5R
- 800/533/400 MHz system bus
- Dual channel DDR400 memory
- Intel Hyper-Threading Technology ready
- AGP 8X slot
- 3COM Gigabit LAN
- IEEE 1394
- Serial ATA with RAID 0
- ATA133 RAID 0, 1, 0+1, JBOD
- Al Net Al Audio Al BIOS Al Overclocking











### P4C800 Deluxe

- Intel 875P + ICH5
- 800/533/400 MHz system bus
- Dual channel DDR400 memory
- Intel Hyper-Threading Technology ready
- AGP Pro/8X slot
- 3COM Gigabit LAN
- IEEE 1394
- Serial ATA + ATA133 RAID 0, 1, 0+1
- Intel Performance Acceleration Technology
   Al Net Al Audio Al BIOS Al Overclocking

### P4P800-VM

- Intel 865G + ICH5
- 800/533/400 MHz system busDual channel DDR400 memory
- Integrated Intel Extreme Graphics 2
- Intel Hyper-Threading Technology ready
- Intel 10/100 LAN

**Distributors** 



Achieva Technology Australia Tel: 02-9742-3288 www.achieva.com.au

cassagustralia Cassa Australia Tel: 07-5445-2992 www.cassa.com.au INGRAM

Tel: 1-300-65-33-33 www.ingrammicro.com.au



Intel® 865G

### Antec

### **Dual Mini Colour light sticks**

### ■ Price: \$30 ■ Distributor: Custom Cases ■ URL: www.customcases.com.au

f you find you have modded just about everything you can on the inside of the case, it might be time to have a look at what you can do on the outside. It is quite difficult to find modding items that fit externally without having to drill a hole somewhere in the case for a molex connector. Antec has recently released a new external light kit to the market under the name of "Light Sticks", available in two different kits. One kit comes with 2 X 8cm external light sticks and the other 1 X 30cm light stick. Depending where you want to place the lighting

will determine which kit is better for you. Both lights are multi coloured and can are capable of glowing in seven different colours. The lights can be set within the unit to be activated continuously or to pulse along to music and sound effects. You can also choose the lights to fade in and out in consecutive colour order, or stay the one colour. Placement of the sticks shouldn't be a problem as the USB cable provided with the kit is quite long. The choice of colours is excellent and changing the colour is easy thanks to the included inverter box.

**Shawn Baker** 



While it is a very cool product, some people will still believe in the beauty of a cold cathode. 76



### Cooler Master 4 LED Fan

### ■ Price: \$19 ■ Distributor: Custom Cases ■ URL: www.customcases.com.au

hese new Cooler Master LED fans might be just what you're after. We had a chance to look at some CCFL fans a few months back, and while these are an excellent product they are quite hard to get a hold of. The advantage over LED fans is they gets rid of the extra power connector needed to power the cold cathode. LED fans are also thinner due to the CCFL disregarding a few extra MM. The pack includes four screws to

easily secure the fans into your case, a three to four pin molex adaptor and of course the fan itself. The fan is available in orange and silver. These are some of the brightest LED fans we've seen and fall nothing short of the quality we expect from Cooler Master. They are also on the quieter side and are capable of pushing enough CFM to be very effective. These fans look excellent when running and more so when you turn the lights off.

Shawn Baker

PCPP Score

The cooler master LED fans are some of the highest quality LED fans around at an excellent price.

83



### Custom Cases Wire Loom

### ■ Price: \$9 ■ Distributor: Custom Cases ■ URL: www.customcases.com.au

Whire Loom is one of those items a lot of people don't know about. It's a fancy name for corrugated tubing used to cover wiring and is certainly one item that will make a welcome addition to anyone who has a window in their case. Custom Cases offer a few colours to choose from, as well as two diameters for the main ATX connector and another one for all the other connectors in your case. If

you are currently having trouble hiding those wires, Wire Loom is definitely the way to go. The blue looks fantastic and as soon as you add a blue cold cathode fluorescent light, it adds a whole new dimension to your case. If you work in your case a fair bit, this is one step that you'll want to take. So, we have practicality on top of aesthetics! This is another excellent product that is low in cost and very easy to use.

Shawn Baker

PCPP Score

Wire Loom is one of those well kept secrets to case modding that no modder should be have to live without. 90



### FOUR WAY ULTIMATE PSU SHOWDOWN

### Cameron Johnson takes a look at four of the best PSUs on the market

ost power supplies are fine if all you want to run is a simple PC. When trying to run a Pentium 4 3GHz on 800FSB, with a Gigabyte of RAM and a Radeon 9800 Pro, a generic PSU just won't do. Voltage instabilities can cause random resets, system freezing and in the worst case scenario, voltage spikes that can cause instant death to the person who is touching them. This is why a few companies have changed the way we work with power. We'll be looking at two Antecs, a Zalman and a Thermaltake power supply to see who takes us into the ultimate power stage.



### Antec

### **Truepower 480**

### ■ Price: \$468 ■ Distributor: PC Case Gear

rom the outside, the Antec Truepower 480 looks pretty much like any other power supply on the market, however, this is where the similarities disappear.

The specs below are very good for a 480-Watt unit, however, running the 12v line at only 22 Amps can cause some problems on high voltage Pentium 4 systems that rely on the 12v line for the CPU power rather than the 3.3y and 5y lines. One major jump forward is the Dedicated Circuitry system used. Antec describes this as a set of regulators that isolate the 3.3v, 5v and 12v lines, so it will not convert 12v down to 5v and from 5v down to 3.3v. Each has its own controller, so if you draw a lot of 12v, you won't lose

on the 5 or 3.3v lines, Two Blue LED fans are included to keep the unit cool and add a touch of class to the unit. In the way of connectors, Antec gives the following, 1x 20pin ATX Power, 1x 4pin 12vaux, 1x 5vaux, 7x 4pin Molex, 2x FDD connectors, 1x 12v fan only 4pin connector and 1x 3pin fan monitor.

### Voltage specifications

+5v: 38Amps Max -5v: 0.5Amps Max +12v: 22Amps Max -12v: 1Amp Max +3.3v: 30Amps Max +5v Stand By: 2 Amps Max.

### **PCPP Score**

very good power supply, but lacks a bit of juice on the 12v line.

### Antec

### **Truecontrol 550**

### ■ Price: \$210 ■ Distributor: Altech

ike the Truepower, the Truecontrol looks like a standard power supply, however it is anything but, and the most innovative power supply of all four tested.

Compared to the Truepower 480, the Truecontrol only raises the amperage on the major rails by 2Amps, and while this is helpful, we would have liked to see more since we have made the jump from 480watt to 550watt. The Truecontrol also uses the new Dedicated circuitry system to separate each rail to allow the most stable voltage options. In voltage options, this is the best choice for Pentium 4 users. One excellent feature is the Truecontrol front panel. This is a 5.25" drive bay with front controller access

### **PCPP Score**

Best all round power supply for Pentium 4 and AMD Athlon with great voltage control options.

increase

decrease the voltage on the 12v, 5v and 3.3v in relation to the speed of the internal fans of the PSU. This allows for the most control over your power. Connector wise, you get the following: 1x 20pin ATX, 1x 4pin 12Vaux, 1x 5Vaux, 7x 4pin Molex, 2x FDD Connector, 2x fan only 4pin Molex, 1x PSU fan header, 1x 8 pin front panel access.

### Voltage specifications

+5v: 40Amps Max -5v: 0.5Amps Max +12v: 24Amps Max -12v: 1Amp Max 3v: 32Amps Max +5v Stand By: 2 Amps Max.

### Zalman

### ZM400A-APF 400W

### ■ Price: \$169 ■ Distributor: PC Case Gear

Straight off the bat, the Zalman PSU looks hardcore. Encased in a black Alloy case, this PSU will look great in your modded cases. Specifications are pretty poor, especially for a 400-watt unit. With very little amperage on the 12v line. overclocked Pentium 4 systems might find this power supply restricting. While Pentium 4 users will want to stay clear, AMD users might find this power supply interesting. With the 3.3 $\nu$  and 5 $\nu$ powering their systems, 40Amps for the 5v line definitely screams AMD delight. Connector wise, you get 1x 20pin ATX, 1x 4pin 12vaux, 1x 5vaux, 6x 4pin Molex and 1x FDD connector, which is more than

enough for RAID systems, Cooling is done with 1x 80mm temperature controlled fan to reduce noise while keeping the PSU within specified temperatures.

### Voltage specifications

+5v: 40Amps Max -5v: 0.3Amps Max +12v: 15Amps Max -12v: 0.8 Amp Max +3.3v: 28Amps Max +5v Stand By: 2 Amps Max.

### **PCPP Score**

Well designed for AMD users, but lacks the power for Pentium 4 overclockers.

### Thermaltake

### **Purepower ATX420**

### ■ Price: \$139 ■ Distributor: PC Case Gear

hermaltake are better known for their cooling solutions than any other equipment, so it was a great surprise to see them with their own brand of power supply. Like the Antec supplies, the Purepower is encased in a standard silver alloy case.

In regards to specification, the Thermaltake is just above the Zalman power supply, making it an equal contender for the ideal AMD power supply. On the Pentium 4 front, 18Amps is rather low, but will do for a moderately overclocked and equipped P4 system. Connector wise, the Thermaltake Purepower comes with the following: 1x 20pin ATX, 1x 4pin ATX12V, 1x 6pin 5vaux connector, 8x 4pin Molex, 2x FDD

### **PCPP** Score

This is a great baseline PSU and a great option for AMD users and based Intel Pentium 4 users.

connectors, 1x 3pin fan header. This is by far the most number of connectors, so it's unlikely you will run out of connectors for your peripherals. In terms of cooling, Themaltake uses 1x 80mm exhaust fan at the back and 1x 60mm fan under the PSU to remove hot air from the case.

### Voltage specifications

+5v: 40Amps Max -5v: 0.3Amps Max +12v: 18Amps Max -12v: 0.8 Amp Max 3.3v: 30Amps Max +5v Stand By: 2 Amps Max.



Now we're really starting to talk beastly. With the release of the 800MHz FSB Pentium 4s, Springdale motherboards, DDR433 RAM, the Radeon 9800 Pro and even cooler cases, there's never been a better time to spend a stupid amount of money on your PC. Select all or even some of the following components and the resulting machine will make your friends wilt with envy.

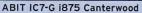


### CPU, MEMORY AND MOTHERBOARD

### Intel Pentium 4 3GHz 800MHz FSB

Whatever you dress it up as, this CPU is a seriously powerful little chunk of silicon. With HyperThreading technology for double the fun, your Radeon 9800 Pro will really be able to stretch its leas.

\$810 www.altech.com.au



With support for 800MHz FSB processors, Serial ATA RAID, DDR433RAM, onboard audio, Gigabit Ethernet and awesome overclocking potential, this is the mother of all motherboards. Tasty. \$410 www.altech.com.au



intel

pentium 4

### 2GB Corsair PC3500C2 RAM

If you want to fiddle around with overclocking your already stupidly fast processor, this is the RAM of choice, with a CAS latency of 2. Plus, it comes inside a funky casing for extra cool factor. \$1000 www.altech.com.au



### ThermalRight SLK-900U

It's a big ol' chunk of copper with a superior contact surface for superior cooling. Coupled with the IC7-G, this beast will enable some serious tweaking, but remember to ask for a 92mm fan for lower noise to RPM ratios.

\$110 www.pccasegear.com.au



### Antec True Blue 480W

There are fatter PSUs out there offering 550W or more, but do they light up blue inside? I think, not. The fact is, these days the Beast has to excel in looks, not just in performance, and this PSU handles both adeptly. \$189 www.pccasegear.com.au



### **VIDEO SUBSYSTEM, AUDIO AND CONNECT**

### Hercules 3D Prophet 9800 Pro

Hercules' iteration of the Radeon 9800 Pro is slightly faster than all the others and in the Beast, that makes all the difference.

\$999 au.hercules.com



### Apple iPod 30GB Generation 3

The iPod is a very useful beast with FireWire connectivity and the ability to function as an external hard drive. Plus, it plays music, obviously. Lots of music. About 18 straight days of music.

\$999 www.apple.com.au

Vigor2600WE Wireless



### Creative Soundblaster Audigy 2 Platinum

Creative continues to lead the field in audio, and this 6.1 soundcard has everything. THX, EAX2, FireWire, every sampling rate under the sun and a front panel unit. Tasty.

\$499 australia.creative.com



### ADSL modem + router

Like any good router, there are IP

assigning functions, as well as a firewall, and equipped with a PCMCIA wireless card, you can now surf prOn in the bath

\$349 www.pcrange.biz



### Creative Inspire 6.1 6600

We realised that including speakers with a built-in decoder was kind of redundant on a machine with an Audigy 2. This set is the perfect companion for the Audigy 2, and cheap!

\$299 australia.creative.com



### **LATEST ADDITION**

### Everything!

As you can see the Beast has been pretty comprehensively overhauled. The PC business is really picking up, with dozens of funky new components just begging to be slammed inside a serious machine. Most significantly, this is also the first time in the Beast we've included lights. It's time to admit that having a beige box just doesn't cut it anymore, even if it does have serious meat inside. Studies show that of two identically performing PCs, the one with the slickest looking cosmetic job will get more attention. And when you've just dropped \$10100 on a PC, you want people to notice.



### STORAGE AND OPTICAL

### NEC ND-110A +R/RW DVD Writer

Back up DivX rips of entire seasons of your favourite kitsch 80s sitcom! This chunkified drive includes 4x DVD+R, 2.4x DVD+RW, 12x DVD-ROM, 16x CD-R, 10x CD-RW and 40x CD-ROM. Phew!

\$599 www.bluechipit.com.au



### Samsung 16x DVD-ROM

This is the model we used in The Matrix PC, so it has a kind of sentimental value for us. You need it to copy... sorry... backup DVDs onto your DVD writer.

\$97 www.auspcmarket.com.au



### 120GB Seagate Barracuda 7200 RPM SerialATA

Serial ATA is the future, at least of cleaning up the inside of your case if nothing else. Get rid of those flat grey IDE cables once and for all and enjoy the funky form factor of SATA!

\$334 www.auspcmarket.com.au



### Panasonic 3.5" Floppy

Well it's a long time dying, that's all we can say for sure about the floppy disk. Its usefulness diminishes by the month, but you can bet if you don't have one, you'll suddenly need one. So, get one.

\$25 www.gamedude.com.au



### **DISPLAY, INPUT AND COSMETICS**

### Samsung Syncmaster 213T 21.3" TFT

LCD is here at last and here to stay. Even the mighty Sony is ditching most of its CRT line. And when you see monitors like the 213T, you see why. The thinnest bezel in the business. Dual DVI inputs. A max resolution of 1600x1200.

\$3499 www.samsung.com.au



### CoolerMaster Wave Master + window kit

Big, aluminium, and immpeccably built this case continues the proud CoolerMaster tradition of spending big and getting awesome value for money. Seven bays, all aluminium construction and subtle but groovy styling, it will make the Beast king.

\$275 www.australiait.com.au



### Logitech Elite Keyboard

We've toyed with cordless, we've faffed about with BlueTooth, but at the end of the day if you're under the hood of your PC a lot, you need a solid reliable corded PS/2 keyboard, and the Logitech Elite is it.

\$82 www.techbuy.com.au



### Microsoft Wheel Mouse Optical

Once again, after months of cordless shenanigans we've come back to the essential mouse - ambidextrous, PS/2 and USB capable, responsive on most surfaces and unencumbered by foolish buttons, it's the essential input device.

\$25 www.microsoft.com.au



### **Dual Cold Cathode Lights**

If you're only going to perform the simplest of mods, you need a bunch of cold cathode lights. We suggest at least two, blue. They come with individual switches, so you can change the mood according to your whim. \$55 www.pccasegear.com.au



### EL Biohazard Case Window Applique

These are cheap, easy to install and give the Beast that extra edge. In fact, repeated testing shows the inclusion of a window applique can actually increase 3D performance by a factor proportional to the user's gullibility.

\$40 www.pccasegear.com.au



### Blue Neon round cables

With SerialATA taking care of the hard drive, you need rounded cables to take care of the floppy and the optical drives. They tidy up the case, save space, improve airflow and even light up blue.

\$56 www.pccasegear.com.au



### the beastie

AMD AthlonXP 2600+

The cheapest CPUs keep getting meatier and meatier \$220





512MB Seitec PC3200 RAM Half a gig is just right for today's gaming, and 400MHz keeps the goodness flowing

### EPOX 8RDA+

Ready to rock with nForce2 power, AGP 8x and support for your 400MHz RAM \$245



\$185

Western Digital JB 60GB Thrashing it out at 7200rpm with an 8MB cache, this HDD is truly Beastie-worthy

### LG 16x DVD, 48x CDRW

Combo drives mean more space in the case, and DVD and CDRW action at one price!



Sapphire Radeon 9200 Okay, it's not a DirectX9 card, but it performs better than an FX5200 so go for it \$215

Silver Keyboard w/ Black Keys Something to compliment the pure blackness. And cheap \$40





Samsung Black 17" It's difficult to find a decent black monitor these days

Black Millennium case It's black, it's got a side window, and includes power. Tasty. \$110





Creative Inspire 2400 Beastie, and they're cheap cheap ch

total beastie value: \$1715



### STUART CALVIN WAXES TECHNICAL

(60



WRITE TO SETUP AT:

Setup PC Powerplay 78 Renwick St Redfern **NSW 2016** 

setup@pcpowerplay.com.au

### **CRT BRIGHTNESS**

I have a problem with the brightness level on my monitor. At the default level of 40% brightness, objects in dark games and even the desktop are hard to see. When I turn the brightness up to 100%, the desktop gets better, though all the details of my wallpaper aren't always visible and some games are still hard to play. I've tried fiddling with the brightness controls in MEDICA nVIEW, but some games simply ignore these settings and they seem to reset themselves when I restart. Not being able to see aliens, even with the shoulder lamp on in AvP2, is

starting to get old. **Nathan Buchanan** 

If the adaptor and drivers aren't the issue, say after me: "I'm going to buy a new 21" monitor. I won't be able to afford food for a month, but I'll just chew on my game mints for as long as it takes." If the monitor produces the same results on another PC, then the unit's buggered (you may now say "bugger!" and stare down the dog). There are usually gamma-level related lighting issues with games, as well as refresh rate problems, but methinks your monitor may be on its way to CRT heaven.

### CHECKING HDD

Are my IDE ATA-133 hard drives Are my IDE AIA-155 hard difference enabled on my motherboard? I've no idea how to check or do it. I have a VIA KT400A chipset, Athlon XP 2200+ and WinXP SP1.

Jim Chang

After you plug in new drives or just install WinXP Service Pack 1 (SP1), phat, phast ATA133 disks (Ultra DMA Mode 6) on motherboards that use VIA chipsets aren't enabled. This occurs although WinXP SP1 supports Ultra DMA Mode 6. When you install WinXP SP1, UDMA Mode 6 devices on your computer aren't enabled in the process, so you need to make sure the UDMA controller is installed: Open Control Panel from Start Menu > Control Panel. Select Performance and Maintenance. Open System and select the Hardware Tab. Open Device Manager. Select IDE ATA/ATAPI controllers and

check if the VIA Bus Master PCI IDE Controller (Ultra DMA) controller is listed or not. If not, then update the driver for the IDE controllers in Device Manager. To do this, follow the steps above, but double-click the Primary IDE channel, and then click the Driver tab. Click "Update Driver" and choose to install the software automatically, Now, follow the on-screen instructions to complete the process. Do the same for the Secondary IDE channel and Bob's your uncle.



I would like your advice on upgrading my computer. My system is a Soltek SL-75KAV with a Duron 900, a 60GB disk, 512MB PC 133 MHz SDRAM, 32MB GF2 MX200, a Mid Tower ATX 300 Watt case, Muse 5.1 DVD sound card, 17" Samsung 753 DFX, MS Force Feedback 2 joystick, Hercules XPS210 speakers, MS Internet Keyboard Pro and Win98SE. Can I fit a larger processor to my existing MB? (1800-2200MHz?) Which graphics card should I use? XP doesn't want to install and games such as BF1942 only play on base settings, whereas Race Driver and IL2-Forgotten Battles don't. Is there hope?

**David Thiele** 

David's inquiry is a good example of what can be upgraded to improve a very basic AMD system. The upgrade I've outlined is not perfect or absolutely ideal, but all of the proposed components, less the PC133 RAM, can be migrated to a newer, faster motherboard supporting DDR RAM at a later time. This Soltek is an older board running the VIA KT133 chipset and is described at www.soltek.de/English/product/ 75kav.htm. The catch, as always, is the PCB Revision - for Athlon XP compatibility the PCB Version should be F1 or later, which is printed on the corner of motherboard. It is good for the top-end AMD Athlon XP 2400+, 2600+ processors (the 2500+ is a Barton core and not yet supported) with a BIOS upgrade from www.soltek.com.tw/ English/download/S75KAV.html. I suspect any faster

Thoroughbred cores will be supported by further BIOS revisions and support for the Barton Core

(512KB cache)

may not eventuate. All downloads are sourced from here:

www.soltek.com.tw/English/dow

nload/main/75KAV.htm. David's

observations about "games such

as BF1942 only just play on base settings, whereas Race Driver and IL2-Forgotten Battles don't" are to be expected with his type and speed of processor and video adaptor coupled with PC133 RAM. Is there hope? Well, certainly! An upgrade to an AMD 2400+, sourced via Australian price-search site www.razorprices.com, would boost performance significantly; the XP 2400+ is now under \$200 and the 2600+ will be under \$300 very soon. A 64MB GeForce2 MX400, for about \$70, will do fine and the board will run it at AGP1.1 4X, but it probably won't tolerate an AGP2.0 video adaptor like the GF4 MX440. He should stick with no more than 512MB RAM for Win98 and stick in at least 640MB if not 768MB for WinXP when it's eventually loaded. To install WinXP on a recalcitrant machine, unplug everything except the floppy, RAM, video adaptor, one CD/DVD-ROM or burner and one disk. A couple of hard resets during an XP install are NOT unusual in my experience. Add in all the other peripherals, one by one, once the install is up and running. A full version of WinXP is preferable for the install as is building a dual-boot option, preferably again, on a separate disk or, at least, partition. Back up your data, game saves and anything else useful to DVD or CD media. Also remember to use something like Rex at www.backsettings.com/backup-

outlook-express.html to backup email and Internet settings and also to recordable media or another disk, and then format and install XP. Alternatively, buy the GA-7VA

XP Ultra, the GeForce4 MX440 and an AMD 2600+. The sweet spot is 2400+/2500+/2600+, but the 7VA series motherboards are a feature-rich environment!

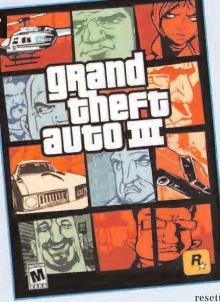


**AUTOMATIC XP BOOT** 

When I reinstall Windows, I reboot and have a DOS screen asking me if I want to start the XP I just installed, or another version/installation I've taken off after I installed XP. Of course, I can only choose the XP I had installed if I've taken the other version off, but every time I do this, I have to press Enter or wait 30 secs for XP to load. Is there a way I can make XP boot automatically without formatting my drives?

popgoesme200

There's an easy, relatively foolproof way and also a slightly more advanced and, therefore, more foolproof method. You can modify the Boot.ini file using the Startup and Recovery dialog, and select the default operating system, change the timeout value, or manually edit the file. This method uses the command line utility, Bootcfg.exe: Click Start and then click Run. In the Open text box, type: cmd. At the command prompt, type: bootcfg /?. The help and parameters for BOOTCFG.exe will display. At the command prompt, type: Bootcfg. A list of entries will be shown - identify what's right and wrong here. At the command prompt, type: bootcfg/delete/ID#. The # specifies the boot entry ID you want deleted from the operating systems section of the BOOT.INI file (eg. 2 for the second OS listed). Surf on over to MicroSoft.com and go to MS Knowledge Base Article - 330184, which is all about Boot.ini and other things. There are other links to boot issues in the article. Also, check out MS Knowledge Base Article - 289022 HOW TO: Edit the Boot.ini File in WinXP. A complex boot.ini can look like this: [Boot Loader] Timeout=5 Default=multi(0)disk(0)rdisk(2)par tition(1)\WINDOWS [Operating Systems] multi(0)disk(0)rdisk(1)partition(2)\ WINDOWS="Microsoft Window XP Professional" /fastdetect C:\="Microsoft Windows 98" multi(0)disk(0)rdisk(1)partition(3)WINNT="Microsoft Windows 2000



Professional" /fastdetect A default Win9x boot is Default=C:\. If you're clever, you can use the attrib.exe in a cmd box and then edit in Notepad.

### **GTA PATCHES**

I just bought a Ti4200 and installed the drivers that came with it and later the drivers that came with a recent PCPP. I then installed GTA3 and the game will load, but when I try to change the Radio Station to Chatterbox it always freezes. It runs all my other games such as C&C Generals and BF1942.

Try this site:
gta3.helpandsupport.net/
?aid=59 for some terrific help. For
WinXP users there's a patch that
needs to be installed. It replaces a
few system files that have been
found to make the game work
better. If you aren't sure you have
the patch installed, here is an easy
way to find out.

Click Start -> Run. Type in DXDIAG. Then click on the DirectX Files tab and look for these two files (located at the top of the DirectX Files tab): D3d8.dll ver 5.1.2600.29 < You have the patch Ddraw.dll ver 5.1.2600.29 < You have the patch

D3d8.dll ver 5.1.2600 < You don't have the patch Ddraw.dll ver 5.1.2600 < You don't have the patch If you don't have these files or version numbers don't match, then visit MS KB Article Q306676 for the fix.

**DAMAGED BIOS?** 

I read a setup letter from PCPP #77 about getting the BIOS to recognise the AMD XP processor. As my computer still detects it at only 1250MHz, I wanted to access my BIOS, but since trying, I've noticed a problem. Whereupon entering BIOS at startup, I get the

message "No disk found.
Please check the power and
data cable connection. <Press
Any Key to Exit>". I can't do
anything, but exit to start the
bootup process again.

**Justin Chan** 

asked if his PC actually booted, but unfortunately I received no reply. If not, then a virus, a disk crash, poor safety routines may have caused THE DAMAGE, So could have errors when upgrading or installing software, lack of maintenance or the result of a mate 'fixing' something. On the other hand, simply

resetting the BIOS using the relevant jumper block on the motherboard may cure this.

### **CROSOVER CABLES**

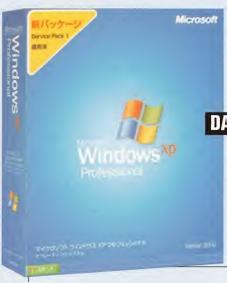
I have been trying out a home network using an SMC EZ Card 10/100 (SMC1211TX) and a Realtek RTL8029 connected with CAT5 cable. Both PCs use Client for MS Networks and I gave the Realtek an IP. When I enter Network Neighbourhood, the SMC can only see itself, whereas the Realtek can't see anything. The Realtek has only four of those diagonal strips of metal in the port and four are empty. Is there something wrong there? They are both in the same workgroup. Are the cards incompatible with each other? Do I need to replace a NIC or have I set it up wrong?

Xan

A crossover cable must be used to connect units with identical interfaces, so a direct PC to PC connection is accomplished. When straight through cables are used to connect Ethernet devices, one of the two units must, in effect, perform the crossover function. Therefore, a simple network running off a hub or switch requires a Patch or straight through CAT5 cable. In an ideal world, CAT5 Patch cable is blue and CAT5 crossover cable is red,

but things aren't ideal and you could have a sexy green or black cable with incompatible wireouts. You can check your cable using this rule: A straight through cable has identical ends, while a crossover cable has different ends. By "ends", I mean the position of the coloured wires. In a 10BaseT Ethernet network, although CAT5 twistedpair cables are used to connect every computer on the network, only four wires are most often used out of a standard eight-wire cable. Hence, in a simple network, a NIC with only four wire conductors, such as your TRL8029, can be used successfully. Only pairs 2 and 3 are used for standard Ethernet wiring. Pairs 1 and 4 can be used for other purposes, such as telephones or even a second separate, complete Ethernet connection. By "Network Neighbourhood", I take it you're running Win98SE. In this case, you must actually log on to the network using Client for Microsoft Networks; so you just can't click Cancel or hit the Enter key when the Log-on dialogue pops up. Another thing is to fire up regedit.exe and look at HKEY\_LOCAL\_MACHINE\Softwar e\Windows\CurrentVersion\Netwo rk\Real Mode Net. Delete the Data value for anything referring to auto logon - usually it has a value of "00" - which prevents a Client for Microsoft Networks log-on at the desktop. Assign 192.168.0.1 to one PC and enable DHCP for the other (Obtain an automatic IP address), check

the subnet masks and reboot both machines. Log on to both and check for the three usual suspects: IPX/SPX compatible protocol - a standard most games use to communicate over the network. TCP/IP, a protocol for Internet communication, NetBEUI - this is basically an interpreter, so different protocols and software applications can talk to each other. Enabling NetBIOS over IPX/SPX is also a good idea and File and printer sharing is essential to view the shared resources on each PC. But make sure the Bindings dialogue is not ticked in File and printer sharing in the TCP/IP.





### **Enter the Matrix and** The Matrix Reloaded

Awesome action or tired tripe? **Genuine genius or predictable pulp?** science fiction or science FACT? Symmetrical statements or anal alliteration?

### **YOU BE THE JUDGE!**



### WIN98 ICS PROBLEMS

I have a Win98 box using Microsoft's Internet Connection Sharing to let my WinXP box go global. The problem is, my ICS fails at random intervals and for no apparent reason. When I uninstall and reinstall ICS, with the requisite reboots, it works again. Of course, to do this requires me to connect, realise it doesn't work, disconnect and reconnect, much to the chagrin of the person who has jumped on the 98 machine in the meantime and who has to get off. It is also costing me \$\$\$ in phone calls. I haven't service packed, updated or otherwise patched either machine. The modem is a Diamond Voice 56k. It is unfeasible to install WinXP on the 98 machine, and equally unfeasible to move the machines, Help!

**Ricky Cveiic** 

This is a major reason why I gave up on Win98. ICS has a habit of just collapsing when you least expect it. Most times, nothing short of uninstalling the network and reinstallation will fix it. My own dial-up Win98SE host had more shared resources than a commune at Mullumbimby and was constantly falling over under its own weight of shares, protocols, bindings and other nonsense. If ICS often works as advertised, then there's little one can do to troubleshoot the random failures. It's always worth a look at the Win98 registry for damaged keys: In Network properties, write down the description of each of the protocols listed. In Registry Editor, open the following key: HKEY LOCAL MACHINE\System\C urrentControlSet\Services\Class\Net

Trans\nnnn. nnnn is an incremental four-digit number starting at 0000. Check the number of sub-keys under the NetTrans folder with the number of instances of protocols installed in the network configuration. There should be one sub-key for each instance of a protocol installed. If there are more keys than protocols listed in Network properties, uninstall ICS, export a copy of the NetTrans key, and then delete the NetTrans key from the registry. This can remove all components from the network configuration, except the adapters installed. To rebuild the NetTrans key, double-click Network in Control Panel, and then click the Add button on the Network Configuration tab. Click Client, click Add, click Client for Microsoft Networks, and then click OK. When the Network Configuration screen returns, it will have added the default protocol and rebuilt the NetTrans key in the registry, so that there's only one sub-key for each protocol installed. Check the registry again to make sure only one NetTrans sub-key exists per protocol installed. If so, reinstall ICS on the host and check to see if the problem is resolved. Have you used any sort

of 'speed booster' or 'MTU tweak'

program? These can do irreparable

damage to the registry and should

not be used by intelligent people. Other than that. consider an OEM WinXP version Windows 9 when you next buy an item of hardware. Microsoft entitles you to an OEM version with the purchase of any piece of hardware - not just a whole system. Oh, and bookmark Microsoft Knowledge Base Article - 238135 and www.dewassoc.com/support/networ king/ics\_5.htm, as all Win98/Me/2K ICS users should do ;) Very good help is available at www.practicallynetworked.com and, as always, www.dalantech.com is a must for a post or two about Network and ICS problems.

### FASTER MOTHERBOARD

I have the ABIT N7F-S notherboard that, of course, has Serial ATA support. My question is, when the next two faster Serial ATA standards become available, will my motherboard take advantage of the speed, or will it only run these drives at the current Serial ATA 150 speed? Also, when are the next implementations of Serial ATA due?

The N7F-S provides an onboard Serial ATA 150 PCI controller and supports two ports for Serial ATA 150 RAID 0/1. Unfortunately, the Serial ATA controller on this board is a bridge between the drive and the PCI bus. In this case, it simply provides connectivity rather than superior speed. A PCI/S-ATA Bridge restricts the theoretical maximum data transfer rate of 150 MB/s to the 133 MB/s the PCI bus allows. Serial ATA has not been able to claim any performance advantage over UltraATA/100 or UltraATA/133, unless it is controlled by a native chipset. Currently, the only way of achieving a superior level of data transfer is to use more than one hard disk in a RAID array (striped or mirrored in your case). The next speed standards are not expected to be featured in new systems until 2004 and they will rely on fullycompliant native chipsets for this very purpose. Silicon Image would have started to punch out quite a few dedicated Serial ATA chipsets by then. By the way, I counted nearly 60 BIOS fixes for this board on the ABIT website, you should have a look around for any fixes if you have any issues at www.abit.com.tw/ abitweb/webjsp/english/download\_ content.jsp?pTITLE=NF7-S&#Bios. If it really means anything, BIOS ID:16 (nf716.exe) dated 27 Feb 2003 updates the on-board Serial ATA BIOS to v4.2.12 and the Serial ATA driver should be at version 1.0.0.28.

### WEB LINK!

Most motherboard sites can be found by typing www.nameofboard.com.tw into your browser.

# Free ADSL Modem

# oadba



monthly

**Unlimited Downloads & Uploads** Unlimited number of LAN users

256/64K permanent ADSL connection **20 emails** with free virus & junk filters **30MB** website space

1 static IP

No dialup phone costs

Free ADSL USB Modem\*

### Limited offer - act super fast now!

256/64K ADSL is available in Sydney, Melbourne, Brisbane, Canberra, Adelaide and Perth metro areas. \* A Free USB ADSL modem is available with the purchase of Unlimited Broadband Pack only. Modem is by delivery only with a \$10 freight fee. # Conditions apply including minimum 6 month plan, once-off \$129 setup fee and \$69.95 monthly fee. Total minimum cost for first 6 months is \$548.70, thereafter minimum cost for each 6 months is \$419.70. Valid credit card required. Paid quarterly in advance. Subject to availability. Visit www.tpg.com.au for full terms and conditions.

Regional Broadband available in NSW, Vic, Qld, SA, WA & NT

email adsl@tpg.com.au



### **Unlimited** Internet

**Unlimited Downloads** 

**Unlimited Hours** 

**56K** dialup connection

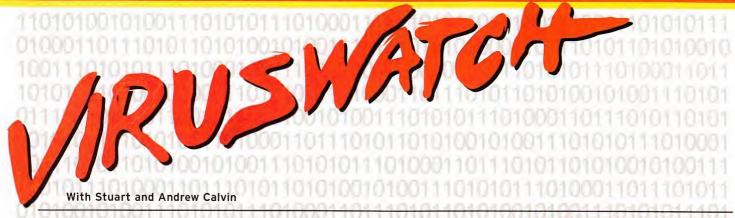
5 emails with free virus & junk filters

**10MB** website space

email customer\_service@tpg.com.au

56K Dialup is available Nationwide: Sydney, Melbourne, Brisbane, Canberra, Adelaide, Perth and regional areas. Check with your telephone provider for call costs. Minimum 3 month contract for credit card, paid quarterly in advance. Minimum 12 month contract for chegue paid annually contract for cheque, paid annually in advance. 4 hour session limit. Visit www.tpg.com.au for full terms and conditions.





## ANTI\_CIH.EXE

Got Virus? Write to us at viruswatch@pcpowerplay.com.au for some sweet sweet relief...

### Antivirus Software Retaliation!

Dear Virus Watch, We use Norton Antivirus on our system and it came up with the file "ANTI\_CIH.EXE" infected with a virus called "W95.MTX.dr". We have visited the Symantec website, but it only gives directions on how to rid the virus from Windows 95/98 OS, but we have WinMe. Also, Symantec keep referring to a Windows installation disk, which we don't have (we only have a Compag Quick Restore CD). Is there any way of getting rid of the virus without have to run the Quick Restore? Symantec refers to the virus stopping antivirus software from working if it detects an antivirus program running on the system, therefore, is it possible it hasn't infected our system? Norton AntiVirus quarantined the file and we tried to repair it with no success.

Carol & Byron

Hey Guys, ANTI\_CIH.EXE is one of a dozen names used by this malicious software. Since you have been able to visit an antivirus website vou are probably not infected. The fact your antivirus software has quarantined the 'infected' file adds weight to this probability. ANTI\_CIH.EXE is a copy of a worm infected with its dropper, the portable executable (PE) file infector "PE\_MTX.A". This infected copy is dropped earlier by PE\_MTX.A in the Windows folder as WIN32.DLL. This is an old piece of malicious software (August 2000) and I'm not sure how you've been unlucky enough to get it! The payload is named W95.MTX, which has a virus component and a worm component. It tries to destroy up to eight different antivirus programs and makes it impossible to mail the antivirus company or visit its website. Whenever you send an email, the worm will mail another one to the same recipient with an attachment only. The virus component searches for specific antivirus programs

the virus does not run. If you are infected you will be able to repair your machine using another installation CD, if you can borrow one.

### Where do you get it?

This memory-resident worm arrives as an attachment in email. The non-resident worm W95.MTX.dr is a dropped stand alone component of PE\_MTX.A. The file infector PE\_MTX.A drops and runs the worm as IE\_PACK.EXE in the Windows folder. The only systems affected are Win95/98/Me.

### What does it do?

The virus has two payloads: Payload 1 prevents the sending of email to certain addresses. Payload 2 prevents connection to certain sites. Once activated, it hooks the send function of Windows Sockets to send copies of the worm via email and block specific Internet websites. By blocking certain sites, it also prevents the sending of email messages to certain addresses. When this worm executes, it attempts to infect the Windows Sockets file WSOCK32.DLL. The infection allows it to hook the send function, so that it is able to monitor data being sent to server systems. To infect WSOCK32.DLL.

system folder. It then infects the copy. To avoid reinfecting the copy, it places an "@" character in the file header as its infection marker. To replace the original WSOCK32.DLL with the infected copy, it creates a WININIT.INI in the Windows directory and adds commands, which renames the infected and marked WSOCK32.MTX to WSOCK32.DLL. On the next startup, when WININIT.INI is run, the infected copy is renamed to replace the original WSOCK32.DLL. While WSOCK32.DLL is infected, this worm is able to send a corresponding email message to the same recipient for every email sent through the infected machine. Every time an email message is sent, this worm sends a corresponding message, with no subject or body, but with a copy of itself as attachment. The attachment can have any one of over two dozen names like README.TXT.pif MATRiX\_Screen\_Saver.SCR; NEW\_NAPSTER\_site.TXT.pif; ANTI\_CIH.EXE; INTERNET\_SECURITY FORUM.DOC.p if; AVP\_Updates.EXE and MATRIX\_2\_is\_OUT.SCR zipped\_files.EXE BLINK\_182.MP3.pif. Obviously, some of the files will interest people without antivirus software...

### **Antivirus retaliation**

This worm prevents the sending of email messages to addresses and connection to popular antivirus websites that contain any of the following antivirus strings: NII. nai. avp. AVP. f-se. F-Se mapl. pand. soph. ndmi. afee. yenn. lywa. tbav. yman. It also blocks the sending of email messages to addresses in antivirus domains such as: wildlist.o mcafee.com pandasoftw symantec.c trendmicro sophos.com fsecure.c and F-Secure.c In effect, the virus prevents downloads of updated antivirus pattern files and

### What's the antidote?

you may not aware of this!

Like most viruses, the best way to fix it is to not get it. After installing antivirus software, check for pattern file updates every day. If you can schedule update checks daily, make



PCCI

sure you do it. Most online and large organisations check for new patterns and engines every hour.

Unfortunately, this virus can prevent this very precaution. In your particular situation, a fix-it tool is available from this website: www.sarc.com/avcenter/venc/data/w 95.mtx.fix.tool.html

There are also instructions for manual removal on the site as well. This is a complex and difficult virus to remove. It alters system files, and on some computers these files cannot be repaired. In some cases, after attempting to repair the virus, you cannot start Windows until you

restore the essential system files from the original Windows installation CD. As this virus can not only disable Windows and executable files, but also block access to certain antivirus websites, you must perform any needed downloads on an uninfected computer. The antidote involves Terminating the Malware Program, Addressing Registry Shell Spawning, Removing Autostart Entries from the Registry, and replacing damaged and infected files. Removing Autostart entries from the registry prevents the malware from executing during startup, which is vital for continued health of the infected machine.

### PC-cillin TOP 10

These ones are going around. Keep an eye for them and make sure you're protected:

### 1. PE PARITE.A

Non-destructive File Infector Virus: Infects .EXE and .SCR files to increase their size.

### 2. WORM\_KLEZ.H

Destructive worm: A mass-mailer that propagates via email.

### 3. PE\_ELKERN.D

Non-destructive File Infector: Infects .EXE and .SCR files for propagation.

### 4. WORM\_KWBOT.C

Non-destructive worm: Encrypted and memory-resident it steals system information.

### 5. VBS\_REDLOF.A

Destructive Visual Basic script: Deletes Files and overwrites the startup file.

### 6. VBS LOVELETTR.AS

Non-destructive Visual Basic script: runs hoax files in Internet Explorer.

### 7. PE\_HANTANER.A

Non-destructive file infector: Infects .EXE files in the KaZaA and the Internet Explorer download folder.

### 8. PE CIH.1003

Destructive file infector: Corrupts the Hard Disk and destroys FLASH BIOS.

### 9. PE\_SPACES.1445

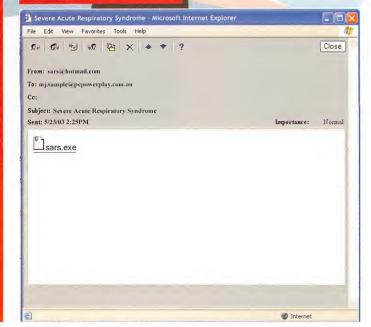
Destructive file infector: Modifies the Master Boot Record and prevents the system booting correctly.

### 10. PE\_DUPATOR.1503

Non-destructive file infector: Increases the size of executable and screensaver files.

### TOPICAL VIRUS

Be on the lookout for WORM\_CORONEX.A. This worm runs on Windows 95, 98, ME, NT, 2000, and XP. Unfortunately, the worm takes advantage of the current concern surrounding SARS. It arrives attached on email messages that refer to the health issue. It sends email using its own Simple Mail Transfer Protocol engine.
Suspicious emails may look like this: From: sars@hotmail.com or sars2@hotmail.com
Subject: Severe Acute Respiratory Syndrome
Message body:
Attachment: sars.exe



# **MOD OF THE MONTH: Desert Combat** FOR: BATTLEFIELD 1942

For: Battlefield 1942 ■ Version: 0.35 Alpha ■ Size: 187.6MB ■ Rating: 5/5

his has got to be the biggest mod currently around for Battlefield 1942, surrounded by so much hype it's sure to rocket to the top of the most played mods list when the first official mod is released. Although only at 0.35 Alpha stage, Desert Combat is already shaping up to be one hell of a polished mod, taking the tried and true gameplay of the World War 2 based online shooter and transposing it to a modern, 21st Century setting. Battlefields, ranging from the war-torn streets of Somalia to Desert Storm, are available to play.

Desert Combat provides players with new maps, skins, weapons and vehicles, but the differences don't simply end with the cosmetic changes. The vehicle mods, especially, add a whole new dimension to the game. Rather than simply re-skinning the existing vehicles, Desert Combat replaces all of the standard vehicles with their modern day counterparts, which function in like. Blackhawk helicopters can be used to ferry around troops rapidly, as well as providing excellent covering fire for advancing troops and, thankfully, they don't seem to mysteriously explode or crash as often as their real world brethren. Aside from the Blackhawk, Desert Combat features around nine other planes, including the fan favourites, the A10 Tank Killer and the Harrier. Likewise, the humble Humvee makes for excellent fast paced troop transport, and with the TOW missile is a rapid armour buster. The US M1A1 and M2A3 tanks are much faster and more manoeuverable than the outmoded models in Battlefield, so you'll have to re-familiarise yourself with their control. However, once you do, you can expect some truly exhilarating tank battles.

All in all, Desert Combat contains around fifteen new ground vehicles including amphibious vehicles for both the US and Iraqi sides and mobile artillery/missile launchers. It can't be stressed enough how much the new vehicles add to the game - not only do they look excellent, but also the sheer number of vehicles available and their range of weaponry truly allows players to develop some very indepth tactics. Even better, word has it there will be more vehicles coming in later versions of the mod.

Although primarily a US versus Iraq mod, Desert Combat chooses sides based on which map is played rather than who people want to be - when playing the Desert Storm map the sides are obviously US versus Iraq, but on the Kasimir map, you will either be











part of an Indian or Pakistani troop. Regardless of the teams, Desert Combat offers the choice of six classes ranging from the standard Assault and Support troops to the more specialised Anti-Armour and Spec-Ops. Class balance is excellent, though there is still a little bit of tweaking and bug fixing left to do (it is only an

Alpha, after all). Each side also has access to a number of modern day weapons and more is promised for the next release.

At the current stage of development, Desert Combat looks and plays better than most finished mods - we can't wait to see what the development team has in store for us next.

### INTERNATIONAL ONLINE SOCCER

For: Half-Life Version: 1.0 Size: 15.2MB Rating: 4/5

warfare and combat mods around it's nice to see a couple of modders doing something different. Bless those merry old souls who look at a game like Half-Life and convert it into something truly different. We've already had a few sports mods for Half-Life - Rally and Grid Iron - now you can add International Online Soccer to the list. Played in a first-person perspective, International Soccer pits teams from around the world in direct competition. Although it does take some getting used to playing soccer from a first person perspective - not being able to see all most of the field at the same time does limit passing choices you'll soon find yourself playing like a pro. For those of you not comfortable with playing in the first person, the mod does come with the option to play in a third person perspective, but keep in mind the controls have been developed with first person play in mind,

so you may encounter

some difficulties aside, International Online Soccer is shaping up to be a fantastic sports mod - anyone who has played an FPS should have no trouble picking up the movement and shooting mechanics. When logging onto a server, players will be automatically assigned to a team, but you shouldn't worry about being stuck up the back as the goalkeeper - IOS features an AI keeper on each team. Although there are only a few international team skins available at the moment, the mod dev team has promised more teams will be coming soon. It's Half-Life. It's soccer. It's all good.







### DAY OF DEFEAT 1.0

For: Half-Life ■ Version: 1.0 ■ Size: 181.5Mb ■ Rating: 3.5/5

A fter over a year of waiting, the final version of Day of Defeat is finally available, cleaning up some of the graphics glitches, fixing and adding weapons, giving some new maps to play on - everything you should expect from a mod. Although Activision has released a boxed version of the mod, you can still download it for free, much like Counter-Strike before it. The major difference between the DoD mod and the box is the retail version features maps and skins not available in the

download (although Activision has promised to release the content as a free download to mod users a little further down the track).

After all that waiting is DoD really worth all the hype? Yes and no. The maps have been given an overhaul with lines cleaned up and chokes tweaked a bit, so the player doesn't get bogged down at points found in the game.

lt's now also possible to play the British (depending on the map). With the British, come new weapons and skins. While the mod is, overall, very polished, it seems as though the dev team had opted to make the combat more arcade-like rather than sticking with the gritty realism. Gone are the bleeding wounds that need to be patched up if you don't want to die.

The online buzz is a mix of enjoyment and disappointment - it remains to be seen what Activision and the mod team will do to satisfy the fans. Don't be surprised if you see a patch in the near future that brings back more realistic combat.

### **MOD NEWS**

**Enemy Territory Released** 

The defunct RTCW expansion, Enemy Territory, is now available for free download. Things look good, so expect to see a full review/write-up in these pages next month. Happy modding!





**DEVELOPER SPOTLIGHT** 

### **TEMPLE**

elcome to our first developer spotlight, a regular Modlife feature that endeavours to bring you interviews with Mod development teams from around the world. With the recent release of the 0.35 Alpha for Desert Combat, we thought it a good idea to look at another interesting BF 1942 mod, Temple. At the moment, game details are a bit scarce and the website does little but confuse readers about the mod's contents.

As far as we can decipher, Temple is a partial conversion mod for BF 1942 that updates the gameplay to a quasi-modern setting where the US fights against either the Germans or the Incan Allies for the last vestiges of free land. Gameplay will revolve around players vying to capture temples scattered across the various maps and hold them until the opposing team runs out of tickets. From what we can understand, there will be a

lot more dependence on water - so much so, the mod includes a new Diver character with the ability to swim fast and plant mines. Aside from these scant details, we can only deduce the mod has the potential to be really interesting if the coders can fully implement water as a more interactive terrain - the ability to swim under a ship and plant a mine on the hull will add brand new dimensions to classic gameplay.



We spoke to William, head of the mod team - here's what he had to say about Temple. In the team there are 4 members

William - Modelling and coding Mike - Modelling and skinning Neil - Modelling and Skinning Ben - Modelling Chris - Sound

PCPP What is the idea behind the mod?

WILLIAM The idea is a jungle warfare between two sides, USA and Germany, fighting for the last unclaimed area of land.

PCPP How long have you been working on it?

william We have been working on it for about 4 months, focusing on getting all the modelling done, and then well take it from there.

PCPP At what stage of development is it currently in? WILLIAM Well, most of the models have been completed and correctly coded, so after skinning them it should be ready for download.

PCPP How did you design the mod?

WILLIAM We have been modelling with Milkshape and 3ds Max, and coding with Chimera's Battlefield Editor.

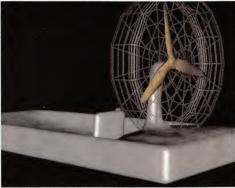
PCPP What other extra information can you give about the mod?

WILLIAM There is a lot more dependence on water with a new class called Diver. He has the ability to swim quickly underwater for a longer length of time, plus he can lay mines. Aside from the water, we have scouts that can climb trees and then deploy sniper tree camps. German engineers can also create holes that hide sharp sticks to badly injure unaware walkers. We will also emphasise realistic gameplay with arcade style vehicles.







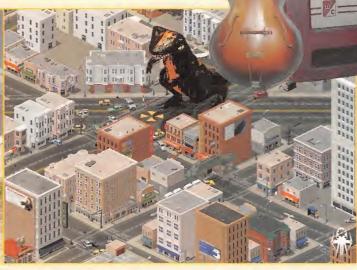




# GARAGE GAMES







### THEY CAME FROM HOLLYWOOD

### WWW.THEYCAMEFROMHOLLYWOOD.COM

f you've ever played the classic Epyx title Crush Crumble and Chomp when it originally came out or as a piece of abandonware, you've probably wondered why no one has ever tried to update what was, after all, a rather good idea. Just recently, Sony released their War of the Monsters title, which they claim was inspired by Command and Conquer, but really is nothing more than a standard 3D fighting game with critters instead of muscle Marys. That's exactly the sort of thing that happens when mainstream publishers get a hold of good ideas.

They Came From Hollywood owes much more to C&C as a strategic monster movie game that puts you in

control of one of ten huge beasties in an environment where everything is squashable, mashable and throwable. Eat cars, punch holes through skyscrapers or use a light pole as a golf club and tee off with a school bus. As an added bonus, support for Dance Pads/Mats will also be included, so players can actually stomp along with their monster.

San Francisco based developer. Octopus Motor, is intent on putting the lie to the idea games can't be made by tiny development teams any more. There are just two of them, the same number of people who worked on the original C&C (not counting ports) as a matter of fact! Lars Norpchen has a lot of experience in the industry starting out on Falcon 3 at Spectrum Holobyte and some of the early Maxis titles. The other team member is Sparky, mostly responsible for the visual side of the game, who has worked as an 'imagineer' for Disney and won awards for her site www.phobe.com, home of the Furby Autopsy and

YETI@Home.

The game has been in development for three years, according to Sparky, because "it is actually quite ambitious. Our cities are huge, and they have a lot more buildings than Sim City 3000 ever had. Plus, they're all unique, which means I have to make absolutely all of them."

Norpchen adds, "The city maps are 19,000 pixels by 9,600 pixels. That's several hundred screens! I do the 3D animation for the monsters, so I wrote all my own tools and engine from scratch. Everything is being written from scratch, no code from any other source is being used. The map editor interface I made is also awful! And Sparky screams at me all the time."

So what is the most demanding aspect of the game's development? Sparky says, "Definitely bringing the cities to life. The cars actually drive on the right side of the road.

the right side of the road.
We have one way roads,
three way roads, bridges,
and overpasses! And
they're all individuals cars that have their

cars that have their own logic, not just an animated loop."

Norpchen enthuses, "There's usually between 1,000 and 2,500 people on screen at once all doing their own little thing. They move in little waves, and when you approach them they run away until they





get to a safe distance, then they just kind of stop and gawk. At times when they're running they'll panic and go the wrong way, sometimes into the monster." Sparky feels it important to add that sometimes they also fall flat on their faces, which looks cute.

On the subject of map editors and user interactivity, Norpchen is unsure of how much will be included in the finished game. He says, "The map editor is one thing we would like to release in some form, but the way it is right now no one would ever understand! In addition, our map making process now involves about 27 steps, going through at least a dozen different programs! The game still supports tile-based maps, so what we're probably going to do is make a tilebased editor that supports predefined tiles and buildings. The ground will already be placed so you'll just arrange the objects."

Unfortunately, at the time of writing, a demo of the game was not available. Well, there are only two team members after all, but they promise one will be available before the main game is finished, which should be by the end of this year.

# FLASHBAC

### **Games and tech remembered with Anthony Fordham**

### BLACKTHORNE

**Genre:** 2D platform adventure **Graphics Mode:** VGA, 256 colours, 640x480

Sound: 8 bit digital effects

True 3D: No Operating System: DOS 5.0, DOS 6

Released: 1994

nce upon a time, only a few months before the release of a game known as Warcraft, a young upand-coming developer called Blizzard popped out an often-overlooked platform adventure - Blackthorne.

It was a game done in that inimitable Blizzard style. Nothing about it was particularly revolutionary, but the traditional elements of a familiar game type had all been implemented and upgraded with a few creative tweaks.

The hero is, of course, a Chosen One. The land is, of course, labouring under the evil yoke of Sarlac. The Chosen One must of course enter the lair of evil and laboriously fight his way through dozens of levels filled with Orcs, armed only with a shotgun.

Pretty standard stuff so far, and the graphics weren't anything to write home about either. But there were a bunch of little touches that really made Blackthorne something special.

First up was dodging. Pressing the up arrow caused the Chosen One to step away from the screen into the shadows, where he was impervious to shots and melee weapons but not explosions. A gunfight consisted of holding down the up key to hide and then quickly stepping forward to let off a shotgun blast. Thing is, the enemy Orcs could also dodge, so gunfights became tense standoffs that put considerable pressure on the player.

Reverse shooting was also very cool, since the hero simply pointed his shotty backwards and fired without



turning his head, the very definition of vigilante chic. Add to this a series of collectible objects ranging from classic keycards to unlock doors, to hover bombs for blasting recalcitrant barriers and spider bombs that could be guided around corners, and you had a game that was part platformer, part puzzler, and all Blizzard.

And yet for some reason praise for Blackthorne remained largely unsung. Perhaps it was because platformers were at a low ebb in the early nineties. Perhaps Warcraft's release later in the same year completely eclipsed it. In any case, it was a grand shame. Blackthorne was platforming goodness personified.

### WHY THE BLACKTHORNE DESERVES TO BE REMEMBERED

- A tight platformer with unmistakable Blizzard flavour
   Reverse shooting too cool for school
   Inventory system included cool spider bombs
   First taste of Orc-flavoured PC gaming, Blizzard style

### FLASHBACK TECH

### V00D002

Significance: First significantly powerful 3D accelerator offering unparalleled graphics. Could also be run in dual-card SLI mode for double power! Cost: Eventually as little as \$200

Released: 1989

his is a story about Chuck and Bruce. That's what 3Dfx called the two main ASICs (Application Specific Integrated Circuits) on the Voodoo2 videocard. Chuck and Bruce. You can still read the 3Dfx technical documentation of the era, which proudly presents all the marvellous things Chuck and Bruce could do, including their support for both SGRAM and SDRAM to create Voodoo2 cards at a variety of price points.

The partnership of Chuck (frame buffer interface) and Bruce (texture mapping engine) was by PC Standards a long and happy one,

spawning excellent cards from a number of manufacturers including my own precious Orchid, the card on which I truly fell in love with Quake 2 all over again for the first time. And X-Wing Alliance, which is still better than Freelancer five years later. Great days.

The Voodoo2 was a pivotal component in the evolution of PC gaming. There were other cards before the Voodoo2, to be sure, but the improvements they added to your games were cosmetic at best and indistinguishable at worst. The Voodoo2 was the first 3D accelerator that made games

look seriously different, and made arcade machines look far less appealing.

It seems almost quaint now to read through the archives of such online luminaries as Anandtech and see them refer to the "monstrous graphics blasting 12MB Voodoo2" with its blistering 75 megapixels a second triangle renders, its support for both 8 and 16 bit colour and its expansive 4MB frame buffer memory.

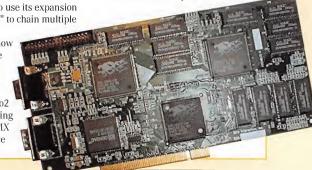
The Voodoo2's greatest and most fondly remembered feature was the ability to use its expansion bus as a "TT bus" to chain multiple

Bruce ASICs together in the now famous scan line interleave or SLI mode. In English? Plug more two Voodoo2 into your throbbing Pentium 233MMX and you get twice

the texture mapping power.

The SLI Voodoo2 configuration dominated PC gaming for months, until some lair at 3Dfx released the Voodoo3 and then subsequently buggered everything up with Voodoos 4 and 5. Ever since then it's been all about nVIDIA with ATi finally getting a look in, but we say that every issue now, don't we?

Voodoo2 was the Telegraph of PC 3D accelerators - a gentler, more civilised technology. And it was passively cooled and SILENT. Man, those were the days.



REOUESTS

We welcome requests so please forward your requests to Disc Producer Paul Noone via email at cdgod@next.com.au or write to PCPP DVD Requests, 78 Renwick St, Redfern NSW 2016



### DVD OR CDS NOT WORKING?

olace discs that are faulty at the time of purchase, not after the fact. Replacement discs cannot be purchased, so please takenaged or doesn't function as intended then please contact Paul Noone immediately by emailing him at: cdgod@next.com.au

### CONTENTS



SPOTLIGHT/ MOVIES Civilization 3 GOTY RTCW: Enemy Territory



### E3 Highlights Call of Duty

Doom 3 Half-Life 2 Halo 2 Jedi Knight: Jedi Academy Matrix Online Metal Gear Solid 3 Thief 3



### **Trailers**

Anachronox ep. 5 Animatrix pt. 4 Matrix XP Max Payne Hero nVIDIA HQ GeForce ad



### DEMOS

Blade Mistress Breed beta **Rise of Nations** Robocop The Chaser The Hulk Tony Hawk Pro Skater 4 Your Own World

Day of Defeat 1.0 Desert Combat 0.35 Earth's Special Forces 1.1b International Soccer 1.0 Public Enemy 1.0b



### **PATCHES**

3DMark03 v320 America's Army v1.60-1.70 Devastation v380 GTA Vice City v1.1 Enter the Matrix v1.52 Quake 2 3.20 [Full CTF] Raven Shield v1.0-1.2 Raven Shield v1.1-1.2 Vietcong v1.01



### **GAME FILES**

Heaps more wallpaper, free games, Winamp skins, map packs and addon files for all your favourite games. Come get some!

3DNA Desktop 1.0 Adaptec ASPI Layer 4.71.2 Adobe Acrobat Reader 5.1 Advanced Zip Repair 1.6 AutoDivx Player 3.51 Catalyst Radeon 3.2 7.84 CDRWIN 3.9 DivX Pro Bundle 5.0.5 DirectX 9.0 Download Accelerator 5.3 GameSpy Arcade 1.3b GeForceTweak Utility 3.2 GetRight 4.5 gmax 1.1 HyperSnap 4.20.0.0 IsoBuster 1.0 LEET Speak 1.2 Nero Burning ROM 5.5.10.28 NVIDIA drivers 44.03 Original CD Emulator 1.4 PC-cillin 2003 PCMark2002 SANDRA Plus 2002 8.59f Screenshooter 7.0 StuffIt 7.0 VIA Hyperion 4-in-1 4.47 Windows Media Player 9 Windows Movie Maker 2 WinRAR 2.90 Winzip 8.1

Zip Repair 1.0 ZoneAlarm 3.7.143



### DEMOS

Breed beta 0.6 Colin McRae Rally 3 **Rise of Nations** The Hulk Top Gun: Combat Zones **Blade Mistress** Robocop Tony Hawk Pro Skater 4 Your Own World 2.5

### E3 Highlights Call of Duty

Doom 3 Half-Life 2 Halo 2, Jedi Knight: Jedi Academy, Matrix Online Metal Gear Solid 3 Thief 3 XIII

International Online Soccer

### **PATCHES**

3DMark03 320 America's Army 1.60-1.70 GTA Vice City 1.1 Enter the Matrix 1.52 Quake 2 3.20 Raven Shield 1.0 Raven Shield 1.1 Vietcong 1.01

### UTLITIES

**NVIDIA drivers 44.03** PC-cillin 2003 Adaptec ASPI Layer 4.71.2 Advanced Zip Repair 1.6 VIA Hyperion

nonth is special. Yes, this month, ose lucky bastards fortunate enough to get flown over to LA have returned from this year's E3 bearing many gifts. They have upon their desks simply oodles of new gaming titles, t-shirts, caps and media discs containing all the best in-game trailers of the show. And I got a Bioware coffee

The big surprises this month were the long overdue Civilization 3 GOTY demo and RTCW: Enemy Territory For Free! Return to Castle Wolfenstein: Enemy Territory is now a free, standalone multiplayer game featuring multiplayer and GameSpy Arcade support for as many as 32 players. Jump into Spotlight for all this and more. What started off as a pretty slow month for Demos wound up finishing with a decisive bang. The hugelyanticipated Breed demo finally came out and Tony Hawk decided to grace our monitors one more time with his Pro Skater 4 demo.

But all this aside, this month is also very special for another reason. After four great years of being Disc Master at Next Publishing, I have finally cut the apron strings and decided to move on to the next stage of my life. Thank you all for your kind words and support through this period. There are too many people to mention here, but you all know who you are. Yep, I sure am going to miss this place. But at least I got my Bioware coffee mug. See you all in the next life!

**Paul Noone Disc Master** cdgod@next.com.au



All files on CD PowerPlay and DVD PowerPlay are scanned with PC-Cillin 2003. For more information please visit: www.manac.com.au/VirusCheck

### **Stunt Racing for Jesus 3D**

### Gaming, racing and a big fat hairy Messiah complex

he boots and I are not religious. Not because of any real determination to avoid the whole church thing or from some overriding disbelief in fate, luck, the eternal verities and the toast always landing buttered side down, it's just that the gamer geek lifestyle doesn't leave lot of room for the quiet reflection of prayer and whatever else it is people do in church. Then, of course, there are all those religions that have a footwear thing. The boots understandably can't deal with the footwear thing.

I mention religion because not so many weeks ago, the boots and I found ourselves summoned via an unsolicited MSN message to an enormous estate in the extremely rich part of Strathfield, NSW, to see a new title by start up developer, Code Worriers, called Stunt Racing for Jesus 3D. Suffice it to say, the boots and I were intrigued enough at this title to jump on the train, jump off the train, and then wander through the wide streets of Strathfield looking for the biggest and most ostentatious mansion we could find.

Let me say in Code Worrier's defence that the cross on the front lawn was not actually on fire. But it was large, almost as large as the stained glass front door which depicted Code Worrier's lead developer Jebediah Caanan receiving divine inspiration from a series of classic Megadrive games. Filled with not so much a holy peace as an unholy fear, we approached.

He met us at that door, did Jebediah Caanan, a great mountain of a young man rich before his time, dressed in a flowing white bathrobe, and yes, the positioning of a number of tasteful drop lights in the front hall did for a moment make it appear as if he was surrounded by a holy glow or presence.

"Welcome," he said, "to my humble home." His humble home consisted of twenty six opulently furnished rooms each with a wireless Internet access point connected to an 8MB digital microwave link in the third floor study. This guy was already stupidly rich, and now he was desiging and producing games.

He took us through to the workroom, a humble little office with six Silicon Graphics workstations and one of those 3D printers that can make high tech energy weapons out of ground up milk cartons. On a common-or-garden 106 centimetre digital flat panel display mounted on the rear wall, ran a pre-Alpha version of what at first glance looked like a fairly standard racing game. Out the floor-to-ceiling windows, the boots and I caught a glimpse of an extensive backyard and a thin guy on a ride-on indiscriminately mowing the flowerbeds, but for the moment we let this pass. There came a flicker of a mousey wife at the door, and a cool glass of homemade lemonade appeared in my hand, but I never actually saw anyone give it to me. I turned my

This is my humble game," said Jebediah, with his large meaty hands discreetly folded. We took a look.

In the demonstration presentation what the hip marketeers call

114 PCPP

the "D Package" or simply "the D" - a piouslooking young stunt racer took the wheel of a series of hotted-up Toyota Camrys and drove them stupidly fast at a number of ramps, loops and chutes all designed to propel the car far into space over a bunch of lined up buses all full of elderly nuns singing an MP3 encoded version of "Nearer My God to Thee.'

"Nice," I said. Under the table I could feel the boots agree. "So, a combination stunt racing and religious education game, huh?"

Not so much an education," Jebediah corrected, "as a celebration of Our Lord's work in this world. And the next," he added, as the bot controlling the demo sent one of the Camrys off the ramp at an odd angle, ploughing it into a crowd of digital spectators all wearing knitted jumpers. The demo reset and started again.

I nodded, and narrowed my eyes as I tried to figure this perennial conundrum out.

"Through stunt racing?" I asked eventually, when no other questions seemed forthcoming. "What does Jesus have to do with stunt racing?"

'Consider the lilies in the field," quoth Jebediah, indicating a flowerbed just outside the window. I turned to look at the precise moment the thin guy on the mower roared across the plot, mincing everything.

"They look a little the worse for wear," I said. "Yes," said Jebediah, "that's Huw our new gardener. We took him in from an outreach program and he... hasn't quite got it yet."

Got what? I wondered as Huw swung around the rose garden, mounted the mulch, ground the roses under his wheels and then expertly guided the mower into a large duck pond in an enormous spray of water, fumes and bits of duck.

'Moving back to my former question," said I,

who usually liked to move forward

as quickly as possible in these

situations, except that this

time I just couldn't let

this go. "Jesus and

stunt racing.

Incidentally, if you're ever in Strathfield, don't eat at any of the pubs. They serve carp. And trust me, you don't want to know where it comes from.

Now, I'm a little rusty on the Gospel, but ...?" Jebediah smiled. "Do you remember Luke 6:47, the parable of the wise man who built his house on a rock, and the fool who built his on the sand?" He indicated a Camry jumping over a line of buses.

I nodded in a way I hoped communicated I had no idea what he was talking about.

'Well what about Matthew 25:1, the ten virgins?" Once again, the Camry jumped over a line of buses, this time presumably filled with virgins.

"Virgins," l said, on more familiar ground. "And don't forget Luke 13:6," my host said holding up an admonishing finger, "the barren fig tree." The Camry, buses, jumping, it all repeated.

"Okay then," I said "let's try something easier. Are there any other stunts in the this build of the game except a Camry jumping over a line of buses?"

Jebediah narrowed his eyes and stepped back. "You're not Catholic are you?" he asked, looking at me suspiciously.

At that moment Huw burst into the room with the biggest brownest carp I had ever seen clenched in his teeth. He spat the fish onto the expensive rug and pointed at Jebediah's wedding ring.

My preciousss!" he hissed.

By the time my brain had ceased freaking out long enough to tell me to get the hell out, the boots were already halfway down the street. And yet, even after all that, I still found myself kind of half looking forward to the game. I like stunt racers.

PCPP#90 on sale 30th July 2003





### ThermalTake

Worldwide capability in Thermal Solutions

Proudly distributed by *Anyware* ™ computer Accessories



XASER II CASE-5000



Oh... cool! ThermalTake again!

XASER II CASE-6000





XASER III CASE-V1000C



XASER III CASE-V2000+



XASER III CASE-V1000+

ThermalTake Xaser III cases combine stylish good looks with functionality. All cases include features such as...

- 2 easily accessible USB2.0 ports & 1 IEEE 1394 firewire port
- Temperature (°C / °F) LED display
- Multiple speed fan controller on front panel
- All aluminum front panel
- 7 case fans included
- Power supply sold separately

**MELBOURNE** 

SYDNEY

The entire range is available in three hot colours: sparkling silver, black and even a vibrant blue!



Anyware ™ COMPUTER ACCESSORIES

BRISBANE

**ADELAIDE** 

www.anyware.com.au

TEL: 02-9879 5788 FAX: 02-9879 5388 TEL: 03-9763 8200 FAX: 03-9763 8400 TEL: 08-9242 8588 FAX: 08-9242 8688 TEL: 08-8347 0488 FAX: 08-8347 0466 TEL: 07-3856 3999 FAX: 07-3856 1777





### Australian Distributor: **Altech Computers**

Sydney:

37 - 39 Egerton Street, Silverwater, NSW 2128 Tel: (02) 9735 5655 Fax (02) 9735 5656 sales@altech.com.au www.altech.com.au

Brisbane: 64 Hope Street, South Brisbane, QLD 4101 Tel: (07) 3017 2000 Fax (07) 3017 2020 info@altech.com.au www.altech.com.au

Master Reseller: NSW Bokerp

Resellers: **NSW Plus Corporation** A-Plus Solutions Friction Networks

Techbuy QLD Dealer Dan P/L GameDude

GameDude
Ace Computer World
VIC Scorpion Technology
SA Adrenalin Computers
TAS Tasmanian Principal Comp.

1300 665 377

www.bokerp.com.au

www.pluscorp.com.au www.aplus.net.au www.friction.com.au www.techbuy.com.au www.dealerdan.com.au www.gamedude.com.au www.acecomputerworld.com.au www.scorptec.com.au www.adrenalin.net.au www.tasmanianpc.com.au



























